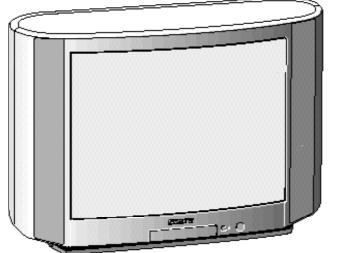
SERVICE MANUAL

AE-4 chassis

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-25C3A	RM-862	Italian	SCC-K43E-A	KV-25C3D	RM-862	AEP	SCC-K41E-A
KV-25C3B	RM-862	French	SCC-K45E-A	KV-25C3E	RM-862	Spanish	SCC-K42E-A









ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, PSECAM NTSC3.58/4.43 (video input only)

MODEL	25C3A	25C3B	25C3D	25C3E
Power Consumption	107W	124W	1 <u>24W</u>	124W

SPECIFICATIONS

Picture Tube Super Trinitron

Approx. 63 cm (25inches) (Approx. 59 cm picture measured

diagonally) 110° deflection

[FRONT]

→ 3 Video input - phono jack→ 3 Audio inputs - phono jacks

MC-Service

→ 3 S video input - 4 pin DIN

Headphones jack: stereo minijack

Rear/Front Terminals

[REAR]

21-pin Euro connector (CENELEC standard)

Inputs for audio and video signals

- Inputs for RGB

- Outputs of TV video and audio signals

→ 2/ → 2 21-pin Euro connector

- Inputs for audio and video signals

- Inputs for S video

- Outputs for audio and video signals (selectable)

Sound output 2x30W (music power), 2x15W (RMS)

Dimensions 717x507x480 mm approx.

Weight Approx. 33.0 kg

Supplied accessories Remote Commander RM-862 (1)

Batteries R6 (2)

Aerial cable (1)

Other features

FASTEXT, 100Hz Digital Plus, PIP, NICAM stereo (KV-25C3B only)

[RM-862]

Power requirements 3V dc (2 batteries) R6 (size AA)
Dimensions Approx. 210x56x24 mm (w/h/d)

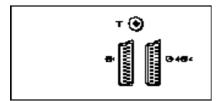
Weight Approx. 110g

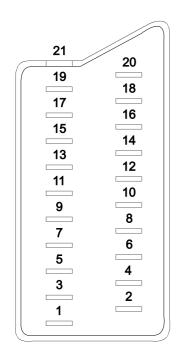
(Not including battery)

Design and specifications are subject to change without notice.

Model name	KV-25C3A	KV-25C3B	KV-25C3D	KV-25C3E
PIP	OFF	OFF	OFF	OFF
MPIP	ON	ON	ON	ON
WIFIF	ON	ON	ON	ON
Rotation Coil	OFF	OFF	OFF	OFF
VM Set (Velocity Modulation)	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON
AKB in 16:9 mode	ON	ON	ON	ON
TXT	ON	ON	ON	ON
FLOF	ON	ON	ON	ON
TOP	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON
Norm I	OFF	ON	OFF	OFF
Norm D/K	OFF	ON	ON	ON
Norm L	OFF	ON	OFF	OFF
Language Preset	Italian	French	German	Spanish

21 pin connector (G1, Y2/ j2)





Pin No.	1	2	4	Signal	Signal Level
1	0	0	0	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	0	0	0	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	0	0	0	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	0	0	0	Ground (Audio)	
5	0	0	0	Ground (Blue)	
6	0	0	0	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	0	lacksquare	•	Blue input	0.7 ± 3dB, 75 ohms, positive
8	0	0	0	Function select (AV control)	High state (9.5 - 12V): Part mode Low state (0 - 2V): TV mode Input impedance: More10k ohms Input capacitance: Less than 2nF
9	0	0	0	Ground (Green)	
10	0	0	0	Open	
11	0	•	•	Green	
12	0	0	0	Open	
13	0	0	0	Ground (Red)	
14	0	0	0	Ground (Blanking)	
45	0	_	ı	Red input	$0.7 \pm 3 \mathrm{dB}$, 75 ohms, positive
15	_	0	0	(S signal) croma input	$0.7 \pm 3 \mathrm{dB}$, 75 ohms, positive
16	0	•	•	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	0	0	0	Ground (Video output)	
18	0	0	0	Ground (Video input)	
19	0	0	0	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	0	-	-	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	_	0	0	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	0	0	0	Common ground (plug, sheild)	

○ Connected ● Not Connected (Open)

* at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK

ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

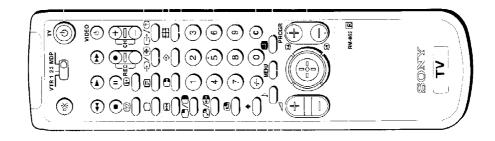
ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

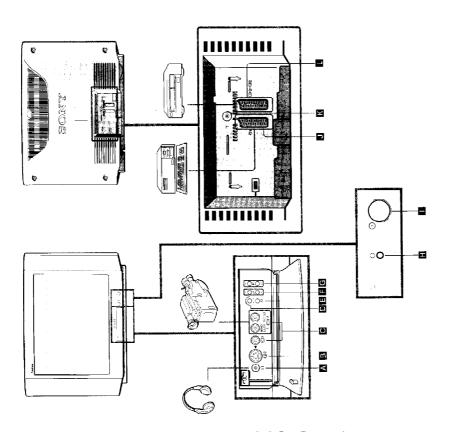
ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE

SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.







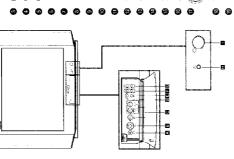
MC-Service

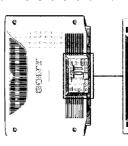
Overview

This section brisfly describes the buttens and controls or the TV set and on the Romote Commander. Rease open the lapsa at the iront and at the back of the frattraction Marual for derailed Illustrations of the Remote Commander and the TV set. Letters in boxes refer to the Beauces Commander and the TV set. Letters in boxes refer to the buttons and connectors on the ITV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the pages given next to each description.

TV set – front

3ef	Reference and Symbol Name	Name	Refer to page
⋖	G	Headphones jack	35
m	-683	S video input jack	40
O	⊕3,⊕3	Input jacks (video, audio)	40
▣	*	Reset button	28
ш	P	Input mode button	28
7	4.	Volume control	28
Ø	P+/-	Programme buffons	138
☶	Ð	Standby mode indicator	28
	Θ	Main power switch	28





40 40 40

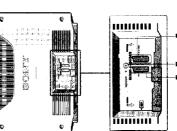
21.-pin Euro connector 2.-pin Euro connector Aer.al socket

Reference and Symbol Name

⊕2/⊕2 \mathbf{Y}

TV set – rear

Refer to page



MC-Service

Remote Commander

	Reference and Symbol	Name	Refer to page
	*	Muting on/off button	28
	0	VCR operation	41
	VTR 123 MDP	Video equipment selector	41
		Video equipment operation buttons	41
with the same	VIDEO C), CH +/-		
	±	On-screen display button	28
	@ •	Time display button	28
	(ii)	Teletext button	28, 37
	0	TV power on/TV mode batton	28
GP-9	5	No function on this set	
0.5	€	Freeze button	28
	0/0	PIP on/off button	36
<u></u>	9/2	PIP Swap button	36
	9	PIP position button	36
00000000000000000000000000000000000000	+	PIP source selector	36
	/-	Double digit entering button	28
7	^ 8	Sound mode button	8
	₩ WENO	Menu on/off button	29
****	⊕	Volume control buttons	28
	6	Joystick for Menu selection	29
 		Press to confirm selection (OK function)	
	⊕ 1v¢	TV standby button	28
=	∆ ⊕	Output mode selector	40
		Teletext Reveal button	37
	Թ	Input mode selector	28
	(3)	Teletext Freezing the subpage	37
	◆	Teletext: Favourite pages butten	36
	⊞	No function on this set	
Programme (in the control of the con	8 1, 2, 9, 0	Number buttons	28
	υ Θ	Direct channel entering button	28
	•	Ficture mode button	34
	♠ PROGR +/-	Pregramme buttons	28
Scare and Pro	(2)	Teletext Page up/page down buttons	. 37
(E)			

2 P

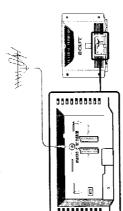
74

Step 2 Basic Presetting Basic Operation.

Step 1 Installation

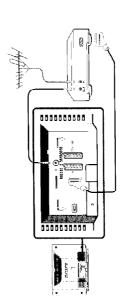
(if you connect a VCR, skip to step B) insert the zerial plug of the supplied aerial cable fightly into the aerial plug of the supplied aerial cable fightly into the aerial socket IF \mathbf{K} .

A Connecting the Asrial



B Connecting a VCR

We recommend that you tune in the VCR signal to the programme position $\nu 0 \nu$. Use the preset function νN anual Programme Preset« (page 29) to do this



Inserting the batteries into the Remote Commander

Insert the batteries checking the correct polarities.



Respect your environment! Dispose of used batteries in an evironmental friendly way.

A Choosing the Menu Langi Country

Using this function you select the language of the menu screens. Also you select the country in which you will use the TV. In this way the channels of the selected country will automatically get the top positions during automatic presetting.

1Press the power switch $\mathbf{0}$. \mathbf{II} on the TV. If the standby indicator $\mathbf{0}$. \mathbf{II} on the TV is lit, press \mathbf{C} $\mathbf{0}$ or a number button $\mathbf{0}$ on the Remote Commander Press the MENU button $\mathbf{0}$ on the Remote Commander. The menu LANGUAGE appears.

o Projection of Secretary of Se

(ň) }

LANGUAGE

2 Push the joystick Φ to blue or green to select the language. Press the joystick Φ to confirm your selection. The menu COUNTRY appears.

3. Push the joystick $\pmb{\Theta}$ to blue or green to select the country in which you wish to operate the TV. Press the joystick $\pmb{\Theta}$ to confirm the selection.

4 Press MENU to restore the normal TV picture.

With this function the TV automatically searches and stores up to 100 channels onto programme positions. If you prefer »Manual Piesetting of charnels» please refer to page 29 in Advanced Operation.



2 Push the joystick $\pmb{\Theta}$ to blue or green to select the symbol $\vec{\square}$ on the menu screen, then push to yellow

1 Press MENU .

Presetting Channels Automatically





 $4\,b)$ You wish to change items as shown on the meru screen. Push the joystick Φ to blue or green. Fush to yellow repeatedly until the desired item is highlighted

4.a) All items shown on the menu screen are as wanted: Press joystit & 40 to select STARI. Now the automatic channel presetting starts from programme position I.

3 Push the joystick **(9** to blue or green to select »Auto Programme», then push to yellow. The menu AUTO PROGRAMME appears

Fush the joystick **@** to blue or green to select the following possibilities:

(Automatic Channel Installation, depending on availability of service in your country) on fast channel presenting special networks using the channel frequency (e.g. R953) TV-system and settion label off. ACI is not active, only ITP (Intelligent Turner Preset)

B/G for Western European Countries D/K for Eastern European Countries PROG (Programme Position)

SYS (TV Broadcast System)

CH (channel)

Presetting automatically starts from position 1.

C to start presetting with terrestrial channels S to start presetting with cable channels

Press the joystick @ as soon as the automatic presetting should start.

5 After presetting the normal TV picture reappears.

Step 3 TV operation

Using Direct Access Buttons

This section explains functions used while watching I'v. Most operations are carried out using the Remore Commancier (numbers in circles). All basic functions are also available on the I'V set itself (let ers in boxes).

2	Press
Switch on	• ① I on IV.
Switch off temporarily (Standby mode)	• 🖒 🔞 TV is now in standby mode and indicator 🖒 🖪 lights up.
Switch on from standby mode	• O O, PROGR +/- O E or any number button O.
Switch off completely	• ① L on TV. To save erergy, we recommend to switch off your TV completely when TV is not in use.
Select programmes	 PROCR +/- —
Display a programme table	 The joystick
Display on screen indications	• ① Oress again to make the indications disappear.
Adjust the volume	• 🛆 + ər - 🏶 🖪.
Mute the sound	• 或 ① Press again to restore the sound.
Display the time (only available when teletext is broadcast)	• (3) (4). Press again to make the display disappear.
Tene in a channel temporarily	• »C. • Once for terrestrial channels, twice for cable charrels. The andication »C. or »Sa for cable channels appears. Buter the channel number with two digits, e.g. for 4, press 0, then 4.
View the input of a connected device (see also page 40)	• © E repeatedly until the desired input signal appears. Press © © to restore the normal TV picture.
View teletext (see also page 37)	• ② ④ to switch on. hput a page number using the number buttons ④ (e.g. for page 125 press 1, 2 and 5). ○ ④ to switch off.
Freeze the picture	• 😉 🚨 Press again to restore the normal TV picture.
Reset picture settings to factory levels	. →•←

Using the Menu System

Use the following buttons on the Remote Commander to operare the Menu system:

1 Press MENU button @ to switch menu on or off.

2 Use the joystick as follows:

Θ**Ο**

MENU

GREEN: scroll up

YELLOW: ir.crease/forward to next item

RED: decrease/back to last item or to last menu Wher menu is not displayed: Push to red to display the last menu screen

Joystick: Press at its neutral position to confirm selection or store BLUE: scroll down

Advanced Presetting

AAB ZOF RATE PRC 7

PROGRAMME TABLE

Presetting Channels Manuall

Using this function you can preset channels one by one to different programme positions. It is also convenient to allocate programme numbers to video input sources.

1 Press MENU (

2 Push jaystisk Φ to thue or green to select the symbol E2 on the menu screen. Push to yellow x_0 confirm the selection.

 $3\,\mathrm{Push}$ to blue or green to select »Manual Programme Presets. Push to yellow to confirm the selection.

4 Push to blue or green to select the programme position (PROG) to which you want to preset a channel. Push to yellow to confirm.

5 Push to blue or green to select the TV broadcast system (SY2)(B/G for wristem European countries, D/K for eastern European countries) or a video input source (EXT). Push to yellow to confirm.

MAN SWEET

5555555 £885£858

3333333 - N m + 10 10 N m

6 Push to blue or green to select AC_6 (for terrestrial channels), aS_6 (for cable channels) or aS_6 (for channel frequency). Aush to yellow to confirm.

There are two possibilities to preset channels manually:

Blacks B

a) You know the channel number or channel frequency. Please use method "Direct input».

b) You don't know the channel number or frequency. Please use method »Search«.

TV TV

continued >>>>>>>>

Advanced Operation | 29

MC-Service

Basic Operation

28

Advanced Presetting

7a) Direct Input

For channel numbers you need to input a two digit number, for the frequency a three digit number.

- Fush to blue or green to select the first digit of the channel number or frequency. Push to yellow to confirm.
 - Fush to blue or green to select the second digit of the number or frequency. Fush to
 yellow to confirm. In case of the channel number the search starts.
 - Fush to blue or green to select the third digit of the frequency number. Push to yellow to start the search of the frequency.
 - To continue search for another charnel: Push to blue or green.
 To store the selected channel Fress the joystick 🗗

 - Repeat steps 4 to 7a) to preset other channels.

7b) Search

Fush repeatedly to yellow until a blue and a green arrow appear in the section SEARCH.

- - Fush to blue or green to searth for the next available channel.
 To continue searth for another charnel. Pesh to blue or green.
 To store the selected channel. Eress the joystick .
 - - Repeat steps 4 to 7b) to preset other channels.

Gaptioning a Station Value

Channels are usually automatically labelled during presetting. You can, however, individually name a channel or ϵ video source using up to five characters.

-- 10

Press MENU

I fush loystick Θ to blue or green to select the symbol $\stackrel{\square}{ \square}$ on the menu screen. Fush to yellow to confirm.

3 Fush to blue or green to select "Manual Programme Presets. Push to yellow to

I tush to blue or green to select the programme position with the channel you want to label. Push to yellow repeatedly until the first element of the position LABEL is hignlighted.

S fush to blue or green to select a letter or a number (select \sim e for a blank). Push to yellow to confirm. Select the other four characters in the same way.

5 After selecting all characters, press the joystick **@**.

7 Repeat steps 4 to 6 to label other channels or video sources.

3 Fress MENU (8) to restore the normal TV picture.

Advanced Presetting

Skipping Pragramme Positions

This function erables you to skip unused programme positions when selecting them with the PROGR = /+ buttons. However, by using the number buttons you can still select the skipped programme position.

Joystick

I Press MENU (6).

2 Push joystick $\pmb{\Theta}$ to blue or green to select the symbol $\vec{\Xi}\vec{\Phi}$ on the menu screen. Push to yellow to confirm.

3 Push to blue or greer to select.» Manual Programme Preset«. Push to yellow to

4 Pash to blue or greer to select the programme position you want to skip. Pash to yelow to confirm.

Push to blue or green to select **** in the position SYS (system). Press the joystick Φ to confirm.

6 Repeat steps 4 and 5 to skip other programme positions.

7 Press MENU

to restore the normal TV picture.

Sorting Programme Positions

This function erables you to sort the programme positions to a preferable order.

1 Press MENU .

4 Push to blue or green to select the programme position of the channel you want to exchange. Press joyszick $\pmb{\Theta}$ to confirm.

3 Push to blue or green to select »Programme Sorting«. Push to yellow to confirm.

PROS 355 CH SD45H L

MANUAL PROGRAMME PRESET

5 Push to blue or green to select the programme position of the second channel. Press jaystick $\pmb{\Phi}$ to confirm. Now the two programme positions are swapped and sorted.

6 Repeat steps 4 and 5 to sort other programme positions.

7 Press Menu 6 to restore the normal TV picture.

Using Parental Lock

This function erables you to prevent children watching undesirable broadcasts. I Press MENU .

2 Push bystick ❸ to blue or green to select the symbol 營 on the menu screen. Push to yellow to confirm.

4 Push to green or blue to select the channel you want to block. Press the joystick $\boldsymbol{\theta}$ to confirm. The symbol $\boldsymbol{\theta}$ appears before the programme position to indicate that this channel is now blocked.

3 Push to green or blue to select »Parertal Lock«. Push to yellow to confirm.

5 Repeat step 4 to block other channels.

To unblock: Select the channel to unblock in the menu "Parental Lock". Press the \bullet jcystick \bullet . The symbol \bullet disappears.









6 Press MENU (8) to restore the normal TV picture.

30 Advanced Operation

æ

Advanced Presetting

Using »further Programme 76

a) individually adjust and store the volume level of each channel (Volume offset). b) in case of picture distortions use manual fine turning to obtain a better picture quality. The factory setting is «on« for AFT (Automatic Fine Turing). Using the menu »Further Programme Preset« you can

L Press MENU @

2 Push joystick $\pmb{\Theta}$ to blue or green to select the symbol $\stackrel{\square}{=}$ on the menu screen. Push to yellow to confirm.

3 Push to blue or green to select "Installation". Push to yellow to confirm

4 Push to blue or green to select »Further Programme Freset«. Push to yellow to

5 Push to blue or green to select the programme position you want. Push to yellow repeatedly to select:
a 'y'OL (Volume Offset, or b) AFT (Automatic Fine Tuning). The selected item changes colour.

Fight to blue or green to adjust the volume for the solucted programme position within a range of -7 to -7. Press the joystick **@** to confirm. Repeat step 6 to set the volume level for other programme positions.

2ush to blue or green to fine-tune the channel within a range of -15 to -15. Press the joystick **©** to confirm. Repeat step 6 to fine-tune other channels. 7 Press MENU **®** to restore the normal TV picture.

Advanced Presetting

Joystick

Adjusting the Picture Rotation

If, due to the earth magnetism, the picture slants, you can use this function to readjust the picture.

1 Press MENU (B.

3 Push to blue or green to select »Installation». Push to yellow to confirm.

4 Push to blue or green to select »Picture Rotation«. Push to yellow to confirm.

5 Push to yellow. Push to blue or greer to adjust the picture rotation. The adjusting range is -4 to +4. Press the joystick **②** to confirm.

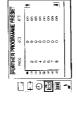
■ Futher Plog. Presed ■ AV Prese: ■ Probes Road on ■ Language/County □ Derro

NSTALLATION

6 Press MENU ® to restore the normal TV picture.







SOLVE ASB.

Using »AV Preset«

Using this function you can preset the desired input source (e.g., \mathfrak{S}° 1, RGB signal) to the respective AV input (AVI). In this way a connected VCR switches automatically to the RGB signal. Also you can label the input sources.

Press MENU @

Push joystick Φ to blue or green to select the symbol $\vec{\Xi}$ on the menu screen. Push to yellow to corfirm.

4 Push to blue or green to select the desired AV input. Push to yellow to confirm. 3. Push to blue or green to select »Installation«. Push to yellow, Push to blue or green to select »AV Preset«. Push to yellow to confirm.

5 Push to bine or green to select the desired source. Fush to yellow to confirm. For the respective AV inputs you have the following choice: AV1.2 YC2 or AV AV2 YC2 or AV
AV3.YC3 or AV

6 To label a source: Push to blue or green to select the first character (better or number, >== for a blank). Push to yellow to confirm. Select the other four characters in the same way.

Press the joystick to store.

8 Repeat steps 4 to 7 for the other AV inputs.

9 For RGB input source only: Push to blue or green to select RGB. H. Centre.
 • Push to yellow to confirm.
 • Push to be or green to adjust the centre of the picture in a range of -5 to +5.
 • Resent step 9 to adjust RGB. H. Size.

10 Press MENU (to restore the normal TV picture Advanced Operation

Advanced TV operation

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to sait your own taste.

1 Press

(for Picture) or

(for Sound)

Press MENU 6.

Push joystick $\pmb{\Phi}$ to blue or green to select $|\underline{\textbf{m}}|$ for Picture Control or f for Sound Control Pash to yellow to confirm. The menu PICTURE CONTROL or SOUND CONTROL appears.

2 Push to blue or green to select the desired item. Push to yellow to confirm.

3 Push to red or yellow to adjust the selected item. Iress the joystick $\pmb{\Theta}$ to confirm. For the effect of each control, see the following tables.

4 Repeat steps 2 and 3 to adjust other items.

Press MENU (to restore the normal TV picture.

Picture Control

Hem	Effect
Picture Mode	 Personal → Economy (energy saving setting) →
	Live → Sports → Movie → Game
Contrast	• Less —— More
Brightness*	Darker —— Brighter
Colour*	• Less ———— More
Hue**	• Greenish ——— Reddish
Sharpness*	• Softer ————— Sharper
Reset	 Resets picture to the factory preset levels
Lumisponder	Off: Normal
	On: Automand optimization of picture level according to the surrounding lighting level
Screen Mode	 Auto (automatic selection of 16:9 broadcasts decoded in 4:3) → 4:3→ 16:9
Noise Reduction	• Off: Normal
	On: Reduction of picture noise in case of weak signals

* Only if »Personal- or »Economy« is selected in »Picture Mode«. ** Available for NTSC colour system only.

Advanced TV operation

Sound Contro

Sound Mode

tem

Treble*

Joystick

Bass*

Joystick

Choice between different sound effects

User \rightarrow Pop \rightarrow Jazz \rightarrow Rock • Less ———— More • Less ——|—— Mone



A: channel 1 or B: channel 2 Stereo → Mono

Off: normal On: special acoustic effect Off: normal Cn: for music broadcasts More left —— More right

Loudness*

Space

Balance

• A: channel 1 or B: channel 2 → PI? (if PIP is switched on, you can select the PIP sound for the headphones)

→ Stereo → Mono

*Only if »User« is selected in »Sound Mode«

• Less ——— More

C Dual Sound

Headphones Dual Sound

C Volume

SCHARL CONTROL	■ Sount Mode (User	200	Distance average u	- progress	T Streets of) puras larg	emile, () o	u () BusiSound (meno
Γ,	16	จ	ď		Œ		2	3

SCUME CONTROL	■ Sount Mode (Uter	100	D Belance	to	State	[cust] Drait Sound	o () Volume	u () BusiSound (meno
Γ,	1	ก	ď]	[2	j



One minute before the TV switches into standby mode, a message is displayed on the screen.

3 Push to yellow. Push to blue or green to select the time. OFF \rightarrow 10 min \rightarrow 20 min80 min \rightarrow 90 min. Press the joystck 0 to confirm.

1 Press MENU .

PICEURE CONTROL

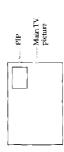
Press MENU (3) to restore the normal TV picture.

This function enables you to select a time period after which the ${\mathbb T}^V$ automatically switches into standby mode. 2 Push joystick \blacksquare to blue or green to select the symbol 2 on the menu streen. Push to yellow to confirm.

Advanced TV operation

PIP (Picture-in-Picture)

With this function you can display a »PIP screen» (small picture) within the main TV picture, in this way you can watch or monitor the video output from any connected equipment (for example from a VTR) while watching TV or vice versa



Switching PIP on and off

Press $\Box V \Box \bullet O$ The PPR sector will be displayed. The PIR picture comes from the source chosen when the YV was last used.

To switch PIP off Press △/ © again.

1 Press MENU 6

2. Push loystick Φ to blue or green to select the symbol $\,\Box$ on the menu screen. Push to yellow to confirm.

3 Push to yellow. Push to blue or green to select »On« or »Off«. Press joystick @ to confirm.

4 To change the PP Position: Push to their or green to select »PIP Positions. Push to yellow. Push to blue, green, Posit to their or green to select ene of the four positions. Press joystick © to confirm.

5 Press MENU (B) to restore the normal TV picture.

Changing the position of the PIP Press © © repeatedy to change the position of the PIP screen within the main screen. There are four different positions available.



Selecting a PIP source

Tips

if no video source has been connected, the PIP picture will be noisy.
 A RGB input source cannot be displayed in PIP.

Swapping screens

Press (2)/(5) (6). The main screen will switch the picture with the 1/1P screen.



٧

m

Feletext

Most TV channels broadcast information via teletext. The indexpage of the broad-caster (usually page 100) informs you about how to use the service hake sure to use to "I channel with a strong signal, otherwise Teletex, errors nay occur.

Direct Access Function

Switching Teletext on and off

I Select the TV channel which carries the teletext service you want to view.

3 Press 🔾 🕲 to switch Teletext off.

Selecting a Teletext page

Joystick

Direct Page Selection
Use the number buttons @ to input three digits of the page number.
It where made a mistake. Type in any three digits, then recenter the correct page number.

■ PIPfor. □ PIPPositor

Page Catching 1 Select a teletext page with page numbers (e.g. index page).

2 Press the joystick . "Lage Catchings is displayed at the top of the page. Pash joystick . To blue or grean to select the page you want. Press the joystick . The requested page is againsted the some seconds. Press . To requested page is also joyed after some seconds. Press . To be returne normal veletex reception.

Accessing the next or preceding page

Press 🕒 🕲 (Page +) or 🗷 (Page -).

Freezing a teletext subpage

Press 🖲 🥨. The symbol 🕃 is displayed. Press 🖹 🗗 to resume normal telebext reception.

Revealing hidden information (e.g. for a quiz)

Press . Press again to cancel.

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, greet, ye flow and blue marks on the Renote Commander. Bush the jostick. ② to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

Joystick





Using the Teletext Menu

Your TV is provided with a memu-guided reletext system. When teletext is switched out, you can use the buttons for menu uperation to operate the teletext memu. Select the lettext and unclosus as follows:

2 Push the joystick (to blue or green to select the teletext function you want. Push to yellow to confirm the selection. I Press MENU @. The menu is superimposed on the telefext display.

USER PAGES/PRESET USER PAGES
See page 39 for information about presetting and operating the user pages.

The index gives you an overview of the contents of the teletext you are using,

TOP/BOTTOM/FULL

For convenient reading of a teletext page you can enlarge the teletext page. After selecting the function, anticomation line $s \overline{s}$ top 0 footom CK. Fulls is displayed. Push juystick, **@** to green to crilarge the upper half, pash to blue to enlarge the lower half. Pass the joystick **@** to resume the normal display. Press \boxminus **@** to resume normal eletext reception.

TEXT CLEAR

After selecting the function, you can watch a TV programme while waiting for a requested fleest page to be captured. With the page is available, the symbol \oplus requested page. Provides colour. Press \oplus \oplus to view the requested page.

SUBTITLES

Check with your teletext service for information about subtitled TV programmes. After selecting the function the subtitles are displayed.

Check with your teletext service about the availability of time coded pages. It available, you can call up a page (e.g. an alarm page) at a certain time.

- Select TIME PAGE in the telerext menu.
 This ligyedic Φ to schow, An information window is displayed. Push to blue or
 Prent logical. Φ to schow. An information window is displayed. Push to blue or
- Use the number buttons (a) to enter the three digits of the page you want (e.g. 301).

 Push to yellow after each digit.
 - 3 Les the number buttons **②** to enter the four digits of the desired time (e.g. 18-54). Push to globus after act digt. Reseptystick **②** to confirm. Fress MENU **②** The latt is displayed in the top letchand comer of the screen.

 At the requested time the page is displayed.

SUBPAGE

Using this function you can select a particular teletext page from several subpages (e.g. page 2 of 6 pages in total). After selecting the function an information line is disclared. Lee the number buttons

So onlier the four digits (e.g. enter 002 for the second page of a sequence).

It is not a sequence.

It is not a sequence in the request Fush joystick

To cancel the request Fush joystick

To cancel the request.

Feletext

Joystick

User Page Sank System

You can store up to 6 of your favourite heletext pages per Teletext service. In this way you have quick access to the pages you frequently use.

Storing pages

1 Press 🖃 🗟 to switch Teletext on. Press MENU 🚱

2 Push joystick ⊕ to blue or green to select »Preset User Pages». Push to yellow to confirm.

■ Leer 2g94
confider
confider TELETEXT MENU

3 Push to blue or green to select the bank (from A to E) you want. Push to yellow to confirm.

4 Push to blue or green to select the three citigits of your first favourite page. Push to yellow after each digit. Push to yellow to confirm.

PRESETURER PAGES

2000

. EAK RODS 1 - EAK 2 - EA 2 - EA 3 - EA 3 - EA 4 - EA 5 -

5 Repeat step 4 for the other 5 favourite pages. If you do not want to preset all 6 page numbers push to yellow without inserting any number. After finishing the presetting, press the joystick ().

7 Push to blue or green to select the programme position of the charnel which carries the teletest service for which you have selected your favourite pages. Push to yellow to confirm. 6 Push to blue or green to select »Allocate Bank«. Push to yellow to confirm.

To: Bo:on OK tull

8 Push to blue or green to select the bank from step 3. Press the joystick 😡 to confirm. 9 Repeat steps 3 to 8 for the other 4 banks available.

Displaying User Pages

1 Press MENU .

2 Push jcystick 🕲 to blue or green to select »User Pages «. Push to yellow to confirm. 3 Push to blue or green to solect the page you want. Press the joystick **(3)** The page is displayed after some seconds.

1 Press 🕁 🚳

2 Push joystick $\pmb{\Theta}$ to blue or green to select the page you want. Press the joystick $\pmb{\Theta}$. The page is displayed after some seconds.







Optional Equipment

Connecting Optional Equipment

You can connect a wide range of optional equipment to your TV. Refer to the illustrations on the back tap page of this Instruction Manual.

nusnanorn	illustrations of the part of public of the p	
Symbol	Acceptable input signals	Available output signals
<u>:</u>	Normal audio/video and RGB	Audio/video from TV tuner
G-2/-(-92	Normal audio/video and 5 video	Normal audio/video and 5 video Audio/video from selected source
€3. €3	+93. +93 Normal audio/video and S video No putput	No autput

About S video input

Viceo signals may be separated into Y (luminance) and C (chrominance) signals. Separated the two signals prevents interference and thus improves the priture quality.

If the picture or sound is distorted, move the VCR away from the TV.
 When connecting a monaural VCR, connect only the white jack to both the TV and VCR.

Selecting Input and Output Signals

a) Direct Access Buttons

Selecting the Input Press $- \mathfrak{D} \oplus \blacksquare$ repeatedly to select one of the following input modes:

	Ē	₽	.		0	m
Input signals	Audio/video through Euro AV connector	RGB through Euro AV connector	Audio/videothrough Euro AV connector	S video through Euro AV connector	Audio/video through the phono jacks	S video through the 4 pin DIN
Symbol on the screen	Ģ.	₹\$)	Ð2	(9 2	Ð3	ල

Press 🔾 🕲 to restore the normal TV picture.

Selecting the Output from Euro AV connector ©-2/-@2 [Pross ©- @ repeatedly to select one of the following output sources for the connector ©-2/-@2 [].

symbol on the screen © 21/6921 1 G Audic/vide 2 C Audic/vide 2 C Audic/vide 2 C Audic/vide	(3-2/-6) 2 Connector output signal	
	from Fuce AV connector	
7 7	CHORLEGE CAN CONTROLL	
	Audic/video from Euro AV connector	
	Audic/video from Euro AV connector	
3 G+ Audio/vide	Audic/video from the phono jacks	ø
3 🕞 Audio/vide	Audio/video from the 4 pin DJN	m
IV Audio/vide	Audio/video from the agrial terminal T	☑

Optional Equipment

b) Using the Menu »Video Connection«

- 1 Press MENU G
- $2\,\mathrm{Pust}$ joystick Φ to blue or greer to select the xymbol -ff on the menu screen. Pust: to yellow to confirm.
- 3 Push to blue or green to select ≈ IV serrent (input source for IV-serent).
 PIP (source for FP servent), or «Output (output source for ⊕ 2/-⊕2/2).
 Push to yellow to confirm.
 You can select between the following sources:
 TV. Tyburner YCE5 viceo sgnal AV. Audio/Video
 IV serven: TV, AVI, ACB, AV2 YCZ, AV3 YC3
 PIP:
 TV, AVI, ACB, AV2 YCZ, AV3 YC3
 Output: TV, AVI, AV2 YCZ, AV3 YC3
 4 Push to the or green to select the desired source. Press jcy stick to stone.
 5 Press MENU to restore the normal TV picture.

Remote Control of other Sony Equipment

Using the buttons 20 on the Remote Commander you can control other Sony

15et the selector VTR.1.23 MDP according to the equipment you want to control. VTR.1. Beta VCR. VTRS.3 some VCR. YATRS. Some VCR. WINDP. Video Disk Player. MDP. Video Disk Player.

- 2 Use the buttons 🛭 on the Remote Commander to operate the equipment.

- If the equipment does not have a certain function, the corresponding button on the Remote Commander coes not work.









Acditional Information

froubleshooting

lere are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in.
	 Press ○ II on the TV. (If ① indicator II is on, press ○ ⑤ or a programme number ⑥ on the Remote Commander.)
	 Check the aerial connection.
	 Check if the selected video source is on.
	 Turn the TV off for 3 or 4 seconds and then turn it on again using ○ ■.
Poor or no picture (screen is dark), but good sound	• Press • • • to enter the PICTURE CONTROL menu and adjust Rightness Contract, and Colour.
Poor picture quality when watching an RGB	• Press 🕘 🚭 repeatedly to select 👶.
video source	•
Good picture but poor or no sound	 Press ∠ +€. If % is displayed on the screen, press % ●.
No colour for colour programmes	• Press • 4 to enter the PICTURE CONTROL menu, select RESET, then press joystick •
Remote Commander does not function	Portage halfories

Remote Commander does not function.

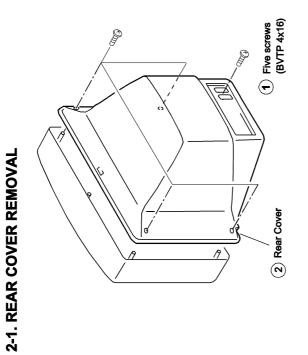
• Replace batteries.

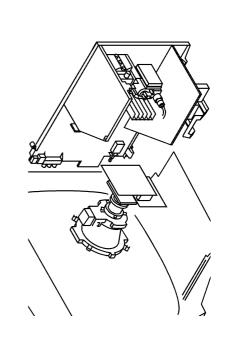
If you continue to have problems, have your TV serviced by qualified personnel. Never open the cising yourself:

DISASSEMBLY SECTION 2

2-2. CHASSIS ASSY REMOVAL

Push the claw of the bracket in the direction of the arrow and remove.





2-4. G BOARD REMOVAL

3) Chassis 6 Deflection Yoke (7) Degaussing coil 8 Spring tension 5) Neck assy (4) C board 9 Four tapping screws (M) 2 Speaker Box Push the claw of the bracket in the direction of the arrow and remove. REMOVAL OF ANODE-CAP

2-6. PICTURE TUBE REMOVAL

2-5. A BOARD REMOVAL

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or

REMOVING PROCEDURES.

① Turn up one side of the rubber cap in ② Using a thumb pull up the rubber cap ③ When one side of the rubber cap is the direction indicated by the arrow ③ firmly in the direction indicated by the arrow ③ arrow ⑥ in up the rubber cap and pulling turning up the rubber cap and pulling turning the rubber cap and pulling turning the rubber cap and pulling turning the nice to a pulling the in the direction of the arrow ⑥ carbon paint on the CRT, after removing the anode.

1 Anode cap

2) Speaker Box

10 Picture tube

HOW TO HANDLE AN ANODE-CAP

- Don't damage the surface of anode-cap with sharp shaped material! Don't press the rubber hardly not to hurt inside of anode-caps! A metal fitting called a shatter-hook terminal is built into the rubber. •
- Don't turn the foot of rubber over hardly!

The shatter-hook terminal will stick out or damage the rubber.



Cushion

REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET **BOTTOM PLATES.**

(1) REMOVING THE PLATES

circuit, the bottom plates fitted to the main chassis bracket require to be removed. In the event of servicing being required to the solder side of the D Board printed This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

Note: There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.

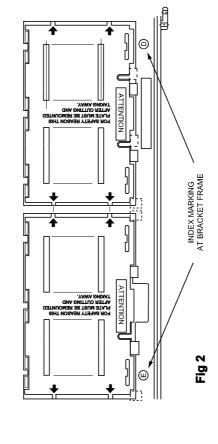
For safety reasons, on no account should the plates be removed and not refitted after servicing.

(2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

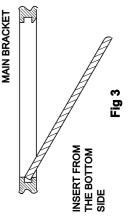
The plates are identified by markings A-B-C-D-E on their top side

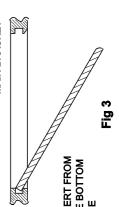
- Identify the plate by locating its marking.
- Turn the plate over noting where the marking is located.
- Locate the corresponding marking indicated on the main chassis bracket. See Fig 2. -- 2 6 4
 - Refit the plate as indicated in Fig 3 with the markings located next to each other.

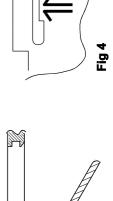


FOR SAFETY REASON THIS AFTER CUTTING AND TAKING AND TAKING AND TAKING AND TAKING AND TAKING AND TAKING ANAY.

removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out. In the event of the plates requiring to be







— 19

Fig 1

SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustment with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches as follows.

Contrast normal Brightness normal

- Carry out the following adjustments in this order:
- 3-1. Beam landing
- 3-2. Convergence
- 3-3. Focus
- 3-4. White balance

Note: Testing equipment required.

- 1. Color bar/pattern generator
- 2. Degausser
- 3. Vector scope

3-1. BEAM LANDING

Preparation:

- 1. In order to reduce the influence of geomagnetism on the set's picture tube face it in an easterly or westerly direction.
- 2. Switch on the set's power and degauss with the degausser.

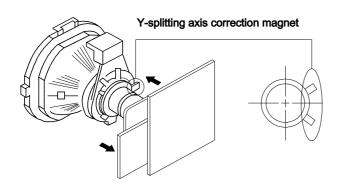
(1) Adjustment of Correction Magnet for Y-Splitting

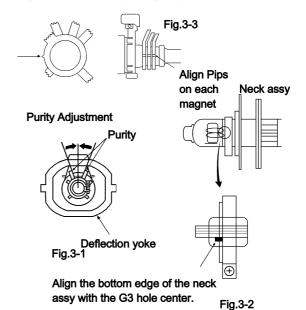
- 1. Input a crosshatch signal from the pattern generator.
- Picture control is minimum and brightness control is still normal.
- 3. Position the neck assy as shown in Fig. 3-2.
- 4. Move the deflection yoke forward to touch the CRT and it stands up rightly.
- Adjust the upper pin and the lower pin symmetrically by opening or closing the Y-splitting axis correction magnets on the neck assy.
- 6. Return the deflection yoke to its original position.

(2) Landing

Note: Before carrying out the following adjustments adjust the magnets as indicated below (See Fig. 3-3).

- Input an all-white signal from the pattern generator.
 Maximize the picture setting and adjust the brightness setting.
- 2. Rough-adjust the focus and horizontal convergence.
- 3. Loosen the deflection yoke screws, align the purity adjustment knob to the central position. (See Fig. 3-1)
- 4. Switch from the all-white pattern to an all-green pattern.
- 5. Move the deflection yoke backwards and adjust with the purity magnet so that the green is at the center and it aligns symmetrically. (See Fig. 3-4)
- 6. Move the deflection yoke forward and adjust so that entire screen becomes green.
- 7. Switch the raster signal to red, then to blue and verify the landing condition.
- 8. When the position of the deflection yoke has been determined, fasten the deflection yoke with the screw.
- 9. If the beam does not land correctly in all the corners, use magnets to correct it. (See Fig. 3-5)





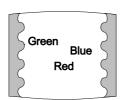
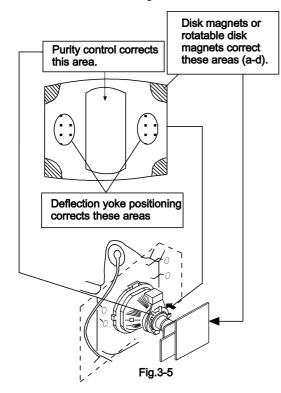


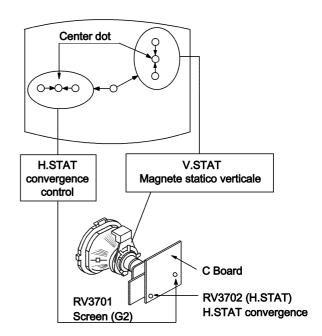
Fig.3-4



3-2. CONVERGENCE

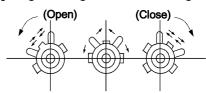
(1) Screen center convergence (Static convergence)

- 1. Input a dot signal from the pattern generator. Normalize the picture setting.
- (Moving horizontally), adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the center of screen.
- (Moving vertically), adjust the V.STAT magnet so that the vertical red, green and blue points coincide at the center of screen.

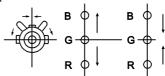


• If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.

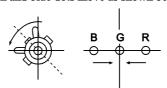
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



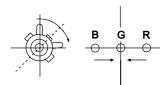
- Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.
- ① By opening or closing the V.STAT magnet, the red, green and blue points move as shown below



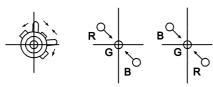
②By rotating the V. STAT magnet counterclockwise, the red, green and blue dots move as shown below.



3 By rotating the V.STAT magnet clockwise, the red, green and blue dots move as shown below.

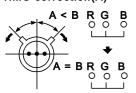


 By opening or closing the V.STAT magnet, the red, green and blue dots move as shown below.

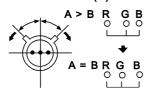


- If the blue dot does not coincide with the red and green points, correct the points by using the BMC (Hexapole) magnet.
- (Sorrection for HMC (horizontal mis-convergence) and VMC (vertical mis-convergence) by using the BMC (Hexapole) magnet.
- ①HMC correction by BMC (Hexapole) magnet and movement of the electronic beam.

HMC correction(A)

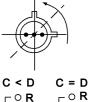


HMC correction(B)



② VMC correction by BMC (Hexapole) magnet and movement of the electronic beam.

VMC correction(A)



$$C < D \qquad C = D$$

$$C = D$$

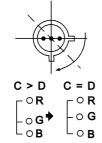
$$C = D$$

$$C = B$$

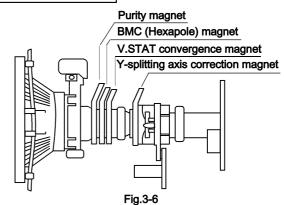
$$C = B$$

$$C = B$$

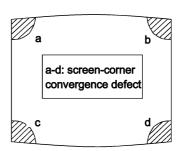
VMC correction(B)



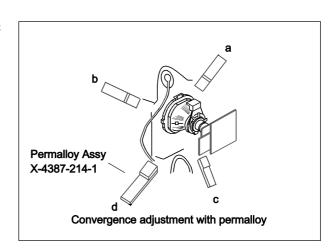
Layout of each control



5. If you are unable to adjust the corner convergence properly, correct them with the use of permalloys.

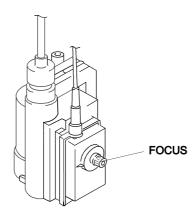






3-3. Focus

- 1. Receive a television broadcast signal.
- 2. Normalize the picture setting.
- Adjust the focus control on the flyback transformer for the best focus at the center of the screen.
 Bring only the center area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. Screen (G2), White balance (Adjustment in the service mode with remote commander)

G2 adjustment (RV3701)

- 1. Input a dot signal from the pattern generator.
- 2. Set the Picture, Brightness and Colour to minimum.
- 3. Apply 170V DC from an external power supply to the R, G and B cathodes of the CRT.
- 4. While watching the picture, adjust the G2 control RV3701 [SCREEN] on the C board to the point just before the return lines disappear.

White balance adjustment

- 1. Receive an all-white signal.
- 2. Enter into the Service Mode by pressing 'TEST', 'TEST' and 'MENU' on the Service Commander.
- Select 'VIDEO PROC.' from the on screen menu display and press OK.
- 4. The 'VIDEO PROC TDA4780' menu will appear on the screen.

Video Proc. TDA4780

Item No	Adjustment item	Data Amount
1	BRT	USER CONTROL
2	COL	USER CONTROL
3	PIC	USER CONTROL
4	HUE	USER CONTROL
5	R GAIN	31
6	G GAIN	Adj
7	B GAIN	Adj
8	R LVL REF	31
9	G LVL REF	Adj
10	B LVL REF	Adj
11	PEAK DRV LIMIT	63
12	GAMMA	31
13	SCP ON = 3LEV OFF = 2LEV	ON
14	DELAY	OFF

- 5. Set picture to MAX.
- 6. Set the 'R GAIN' to 25.
- 7. Adjust the 'G GAIN' and 'B GAIN' so that the white balance becomes optimum.
- 8. Press the OK button to write the data for each item.
- 9. Set picture to MIN.
- 10. Set the 'R LVL REF' to 31.
- 11. Adjust 'G LVL REF', and 'B LVL REF' with the left and right buttons so that the white balance becomes optimum.
- 12. Press the OK button to write the data for each item.

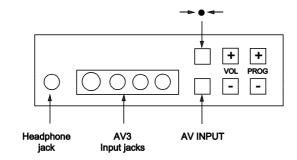
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-862.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing the PROG + (plus) and PROG - (minus) buttons on the front panel.



- 2. "TT" will appear on the upper right corner of the screen.
- 3. Press " MENU " on the commander to get the service menu on screen.

DEVICES	
Init TV	
Pip, Lumisponder & Auto:	side
Sub Adjust	
Video Proc	TDA4780
Col Dec Main	TDA9144
Deflect. Cont	SDA9361
Col Dec Sub	TDA9143
Feature Box	S87C654
AI	TDA9170
DA	SDA9280
Single PIP	SDA9288
Sound	
Line23 det	

- 4. Push the joystick up (green) or down (blue) on the remote commander to select the adjustment item.
- 5. Press the center button to proceed to the next menu.
- 6. If the adjustment item is 'Video Proc.', push the down button to move to 'Video Proc.'.
- 7. The Menu as indicated in Fig 4-3 will appear on the screen.
- 8. Move the joystick up or down to move to the adjustment item and press the center (OK) button.
- 9. Change the data in order to comply with each standard.

Item No	Adjustment item	Data Amount
1	BRT	USER CONTROL
2	COL	USER CONTROL
3	PIC	USER CONTROL
4	HUE	USER CONTROL
5	R GAIN	31
6	G GAIN	Adj
7	B GAIN	Adj
8	R LVL REF	31
9	G LVL REF	Adj
10	B LVL REF	Adj
11	PEAK DRV LIMIT	63
12	GAMMA	31
13	SCP ON = 3LEV OFF = 2LEV	ON
14	DELAY	OFF
15	DATA BUFF	OFF
16	NTSC MATRIX	OFF
17	HDTV	OFF
18	FSBL	OFF
19	AUTO CUT OFF	ON
20	FSW 2 DIS	OFF
21	FSW 2	OFF
22	FSW 1 DIS	OFF
23	FSW 1	OFF
24	ADAPT BLACK	OFF
25	Y HIGH 1V	OFF
26	MOD2	OFF
27	BLUE STRETCH	OFF
28	VM OUT	OFF
29	PEAK DRV ABS	ON
30	TIME CNST PEAK LIMIT	OFF

Fig. 4-3

SDA9361 (VIDEO PROC.)

Item No	Adjustment item	Data Amount
1	HDE	ON
2	VR	0
3	RABL	ON
4	BLK DIS	OFF
5	2FH 2*LINE FRQ	ON
6	STANDBY MODE	OFF
7	VERTICAL	ON
8	BSE BLK SELECT	OFF
9	SSE START SCAN	OFF
10	SRSE START RED SCAN	OFF
11	GBE GUARD BAND	OFF
12	STE SCAN TIME TABLE	OFF
13	NSA SELF ADAPTION	ON
14	V SHIFT	ADJ
15	V SIZE	ADJ
16	V LIN	ADJ
17	V S-COR	ADJ
18	V EHT COMP	25" = 78 29" = 100 28" = 36 32" =
19	H SIZE	ADJ
20	PIN PHASE	ADJ
21	PIN AMP	ADJ
22	UP COR PIN	ADJ
23	LOW COR PIN	ADJ
24	H EHT COMP	25" = 78 29" = 100 28" = 36 32" =
25	H SHIFT	ADJ
26	V ANGLE	ADJ
27	V BOW	ADJ
28	PWM START	0

Item No	Adjustment item	Data Amount
29	D/A	0
30	V BLK TIME	0
31	H BLK TIME	0
32	STAR V SCAN	0
33	H BLK PHASE	0
34	V SCAN WIDTH 0	0
35	V SCAN WIDTH 1	0
36	GUARD BAND	0
37	START RED SCAN	0
38	NUMBER FIELDS	1
39	NI NON INTERLACE	OFF
40	NR VSYNC NOISE RED	ON
41	SCC WITH VBL	ON
42	MIN LINES/FIELD	0
43	MAX LINES/FIELD	0
44	AFC EHT COMP	0
45	PLL FREQ	6
46	VCR	ON
47	GEN MOD	OFF
48	HSWID	ON
49	INT H PHASE	239
50	PWM WIDTH	0
51	NOISY VCR	OFF
52	KILLZIP	OFF
53	TC3RD	OFF
54	BANDGAP 4 OFF	OFF
55	BANDGAP OFF	OFF
56	BANDGAP	0

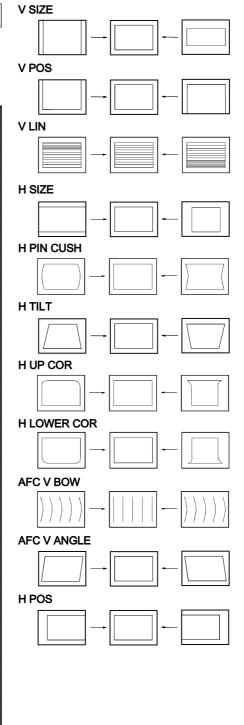
TDA4780 (VIDEO PROC.)

Item No	Adjustment item	Data Amount
1	BRT	USER CONTROL
2	COL	USER CONTROL
3	PIC	USER CONTROL
4	HUE	USER CONTROL
5	R GAIN	25
6	G GAIN	Adj
7	B GAIN	Adj
8	R LVL REF	31
9	G LVL REF	Adj
10	B LVL REF	Adj
11	PEAK DRV LIMIT	0
12	GAMMA	31
13	SCP ON = 3LEV OFF = 2LEV	ON
14	DELAY	OFF
15	DATA BUFF	OFF
16	NTSC MATRIX	OFF
17	HDTV	OFF
18	FSBL	OFF
19	AUTO CUT OFF	ON
20	FSW 2 DIS	OFF
21	FSW 2	OFF
22	FSW 1	OFF
23	FSW 1	OFF
24	ADAPT BLACK	OFF
25	Y HIGH 1V	OFF
26	MOD2	OFF
27	BLUE STRETCH	OFF
28	VM OUT	OFF
29	PEAK DRV ABS	ON
30	TIME CNST PEAK LIMIT	OFF

DEFLECTION SYSTEM ADJUSTMENT

- Enter into the service mode and select 'Deflect cont.'.The
 'Deflect cont. SDA9361' adjustment menu will be displayed.
- 2. Select and adjust each item in order to get an optimum image.

Item No	Adjustment item	Data Amount
1	HDE	ON
2	VR	0
3	RABL	ON
4	BLK DIS	OFF
5	2FH 2*LINE FRQ	ON
6	STANDBY MODE	OFF
7	VERTICAL	ON
8	BSE BLK SELECT	OFF
9	SSE START SCAN	OFF
10	SRSE START RED SCAN	OFF
11	GBE GUARD BAND	OFF
12	STE SCAN TIME TABLE	OFF
13	NSA SELF ADAPTION	ON
14	V SHIFT	ADJ
15	V SIZE	ADJ
16	V LIN	ADJ
17	V S-COR	ADJ
18	V EHT COMP	25" = 78 29" = 100 28" = 36
19	H SIZE	ADJ
20	PIN PHASE	ADJ
21	PIN AMP	ADJ
22	UP COR PIN	ADJ
23	LOW COR PIN	ADJ
24	H EHT COMP	25" = 78 29" = 100 28" = 36
25	H SHIFT	ADJ
26	V ANGLE	ADJ
27	V BOW	ADJ
28	PWM START	0



4-2. VOLUME ELECTRICAL ADJUSTMENTS

Sub Brightness Adjustment

- 1. Enter Service Mode (Device Menu).
- 2. Select 'SUB ADJUST MENU'.

Sub adjustment

Sub Picture

Sub Color Sub Brightness

4/3 Center

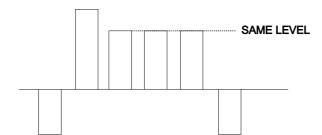
PAP H-Center

PAP HWE-Offset

3. Adjust the value according to the following advice.

Sub Color Adjustment

- 1. Input a PAL color bar signal.
- 2. Connect an oscilloscope to CN3703.
- 3. Enter into 'SERVICE MODE'.
- 4. Choose 'SUB ADJUST'.
- 5. Enter into Sub Color mode.
- 6. Adjust data so that the right sides of the waveforms are of equal height.



4-3. TEST MODE 2:

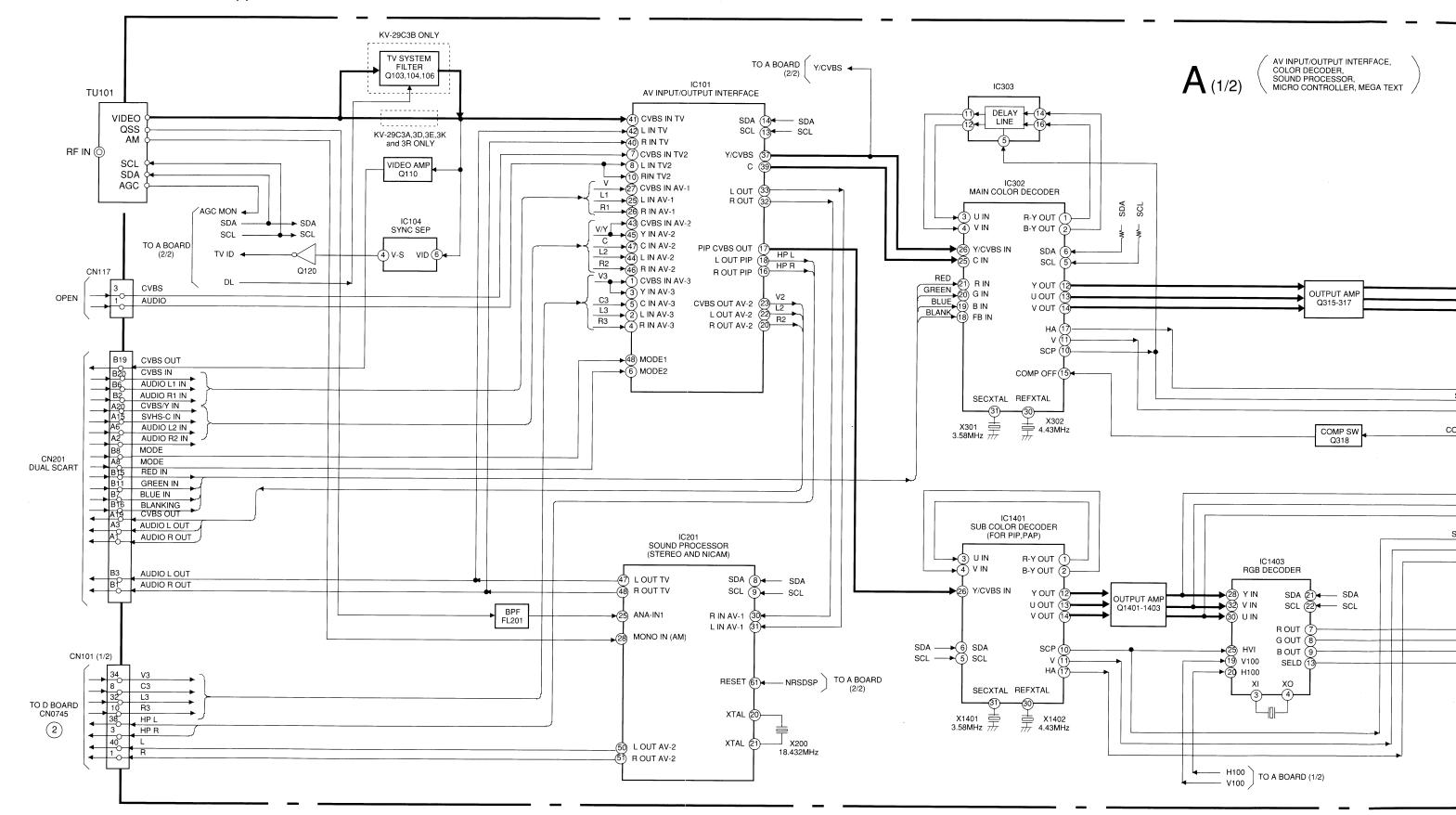
Is available by pressing the Test button twice, OSD "TT" appears. The functions described below are available by pressing the two numbers. To release Test Mode 2, press 0, 10, 20 ... twice or switch the TV into Standby Mode. Pressing the two Local Control buttons (+ and -) during Power ON will also switch into "TT" mode.

In TT mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed!!

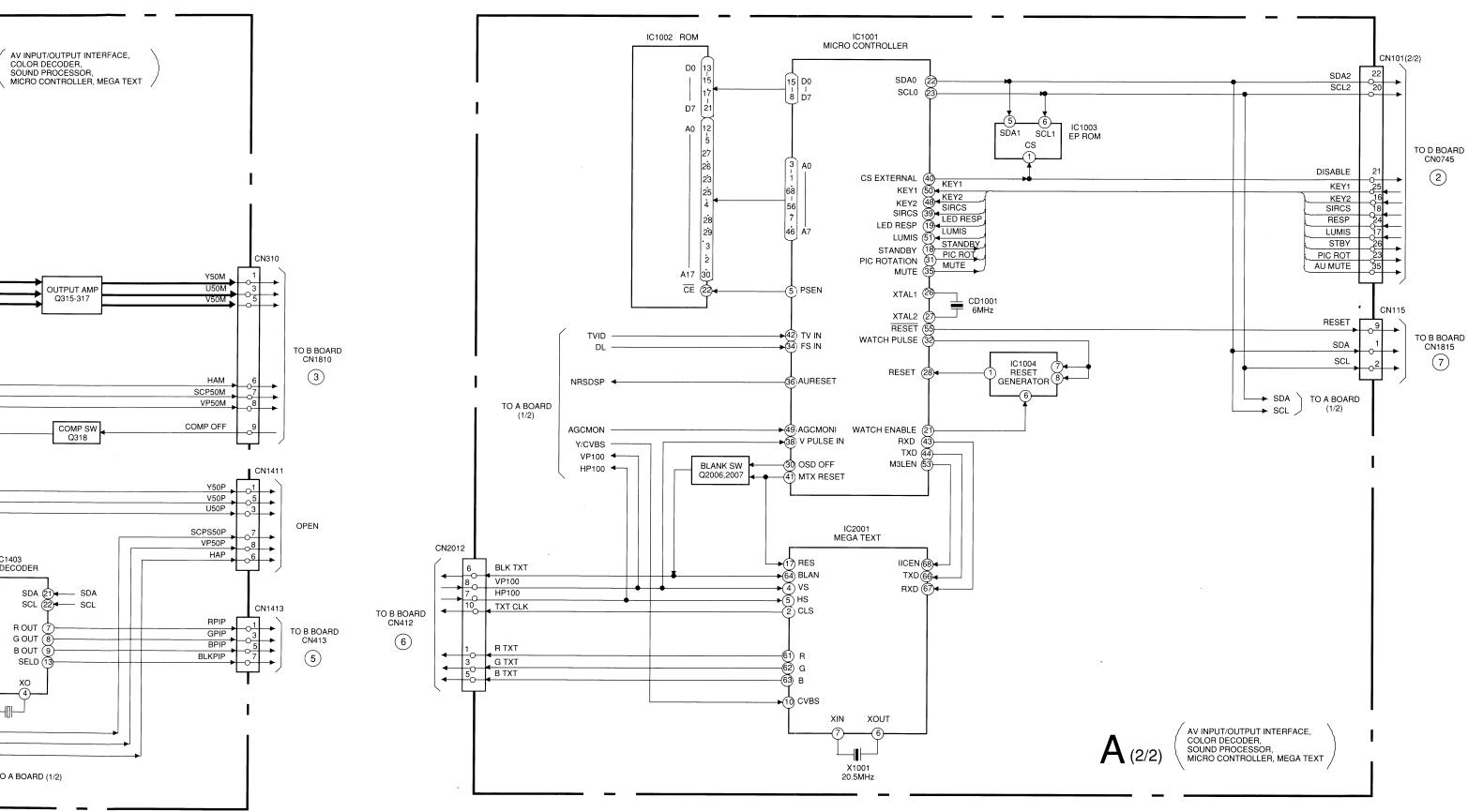
00	Switch back to normal mode - TT mode off
01	Switch service menu on
02	Direct access to Noise reduction
03	Set volume to 30%
04	Service menu in "Service Mode"
05	Service menu in "Production Mode"
06	Set Volume to 80%
07	Aging Mode
08	Shipping Condition
09	Language Reset
10	The TT number will be deleted
11	Direct access to Balance
12	Direct access to Hue
13	Display of TV set configuration
14	Production Info Display
15	Read Analog from ROM
16	Save Analog F in NVM
17	This function presets the Labels for the AV sources: AV1, RGB, AV2, YC2, AV3, YC3, AV4, YC4.
18	No function
19	No function
20	See TT10
21	Picture Rotation automatic function: (-4) -> (+4) -> 0
22	Error Monitor Display
23	Direct access to Sub Brightness Adjustment.
24	Direct access to Sub Colour.
25	Status Menu Display
26	Text Character selection (Char set 06 -> West Europe)
27	Text Character selection (Char set 38 -> East Europe)
28	Text Character selection (Char set 40 -> West Europe) US English
29	Text Character selection (Char set55 -> West Europe) Turkish
30	See TT10

31	no function
32	no function
33	no function
34	no function
35	no function
36	no function
37	no function
38	Screen Position
39	Reset Programme Table
40	See TT10
41	Picture Min
42	no function
43	no function
44	no function
45	Set NVM to Protect mode
46	IR Channel Pressetting Mode. The channel pressetting can be done by a Special transmitter. Sequence: TT46 -> -PR Number select display appears Select Prog. No. from where the channel shall be stored. -> Now TV is waiting for IR sequence <> If no IR transmission starts TT46 is released after 20 secs <-! Note: when TT46 is active,
	any transmission will be interpreted as PROG data!
47	any transmission will be interpreted as PROG data ! no function
47 48	
	no function
48	no function
48	no function no function New Initialize
48 49 50	no function no function New Initialize See TT10
48 49 50 51	no function no function New Initialize See TT10 Strobo mode is activated.
48 49 50 51 52	no function no function New Initialize See TT10 Strobo mode is activated. no function
48 49 50 51 52 53	no function no function New Initialize See TT10 Strobo mode is activated. no function no function Direct access to Velocity Modulation VM (Production
48 49 50 51 52 53 54	no function no function New Initialize See TT10 Strobo mode is activated. no function no function Direct access to Velocity Modulation VM (Production use)
48 49 50 51 52 53 54 55	no function no function New Initialize See TT10 Strobo mode is activated. no function no function Direct access to Velocity Modulation VM (Production use) Slicer High

59	MTX Wide Framing Code Window
60	See TT10
61	no function
62	no function
63	no function
64	Reset all IIC Slave commands (Production use)
65	Reset stored error codes in NVM
66	Feature box and Pal Plus
67	no function
68	Ignore Errors - on
69	Ignore errors - off
70	See TT10
71	no function
72	no function
73	Megatext RGB textlevel one step decreased.
74	Megatext RGB textlevel one step decreased (max 1 steps down starting from E0h) (Production use)
75	no function
76	SDA9361
77	SDA9280
78	PIP
79	no function
80	See TT10
81	S87C654 Default data setting
82	no function
83	no function
84	TDA4780 Default data setting
85	no function
86	TDA9143 Default data setting
87	SDA9288 Default data setting
88	Char set Russian
89	Char set Russian (esc)
90	See TT10

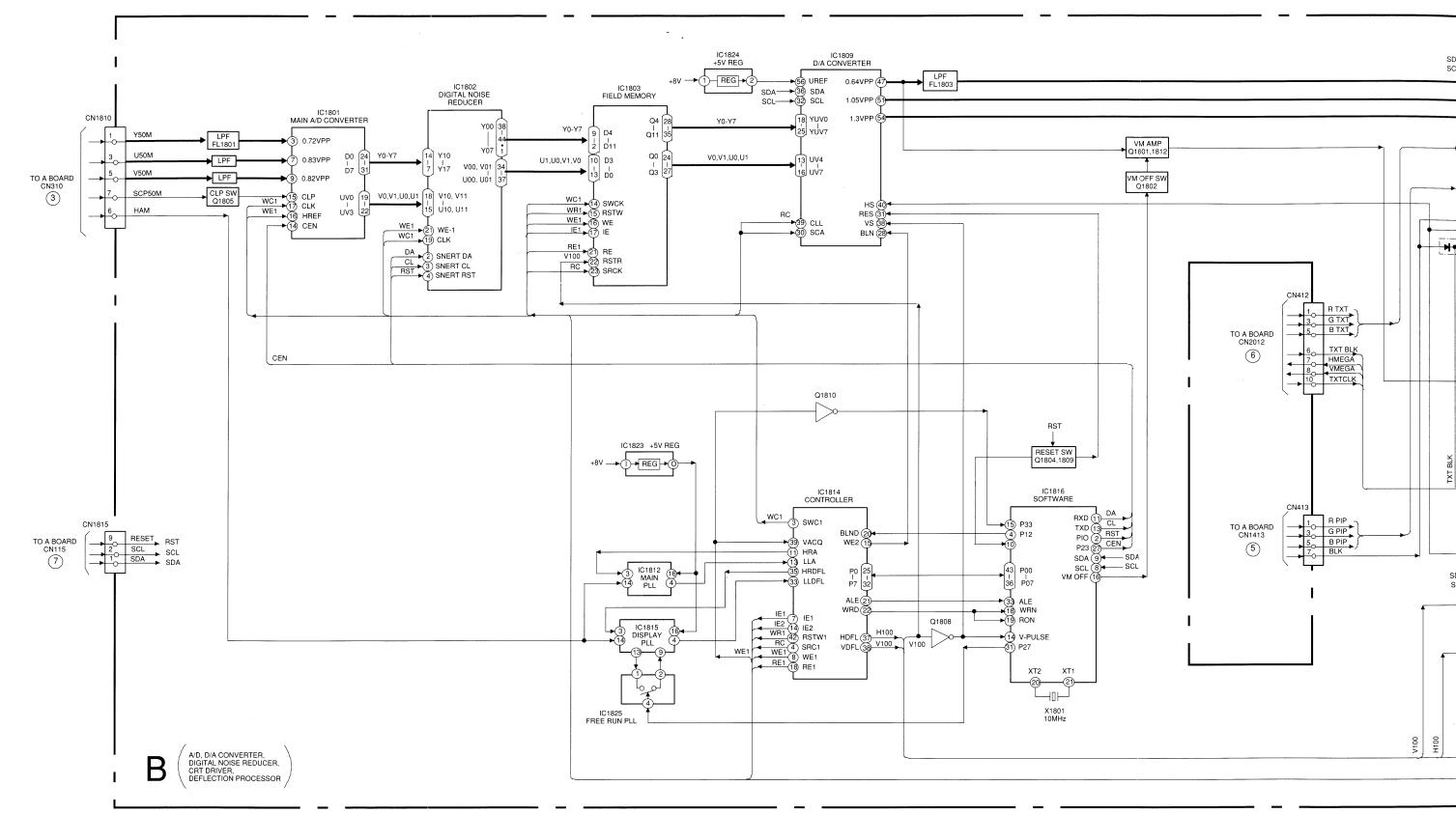


BLOCK DIAGRAM (2)

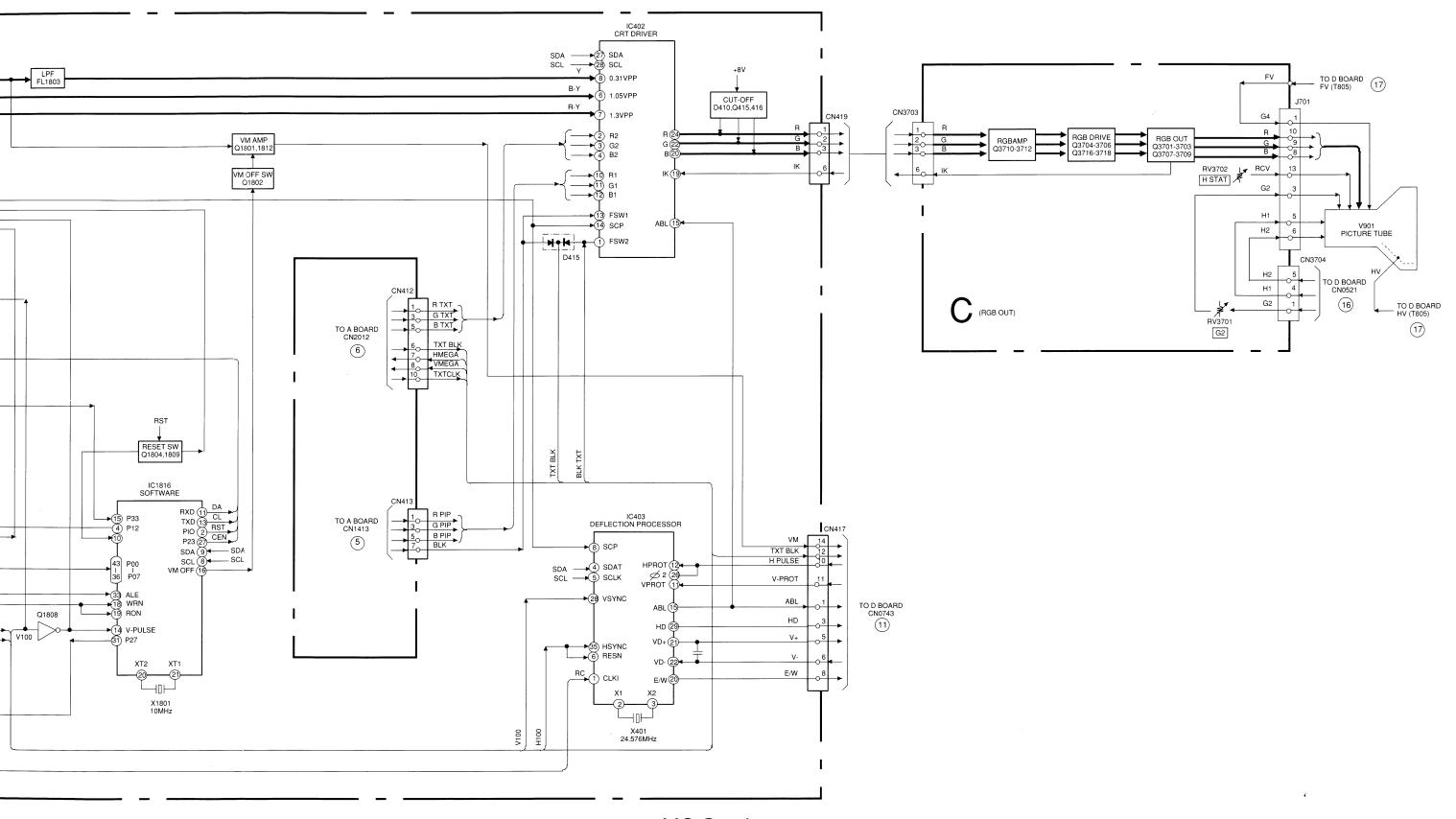


MC-Service

BLOCK DIAGRAM (3)

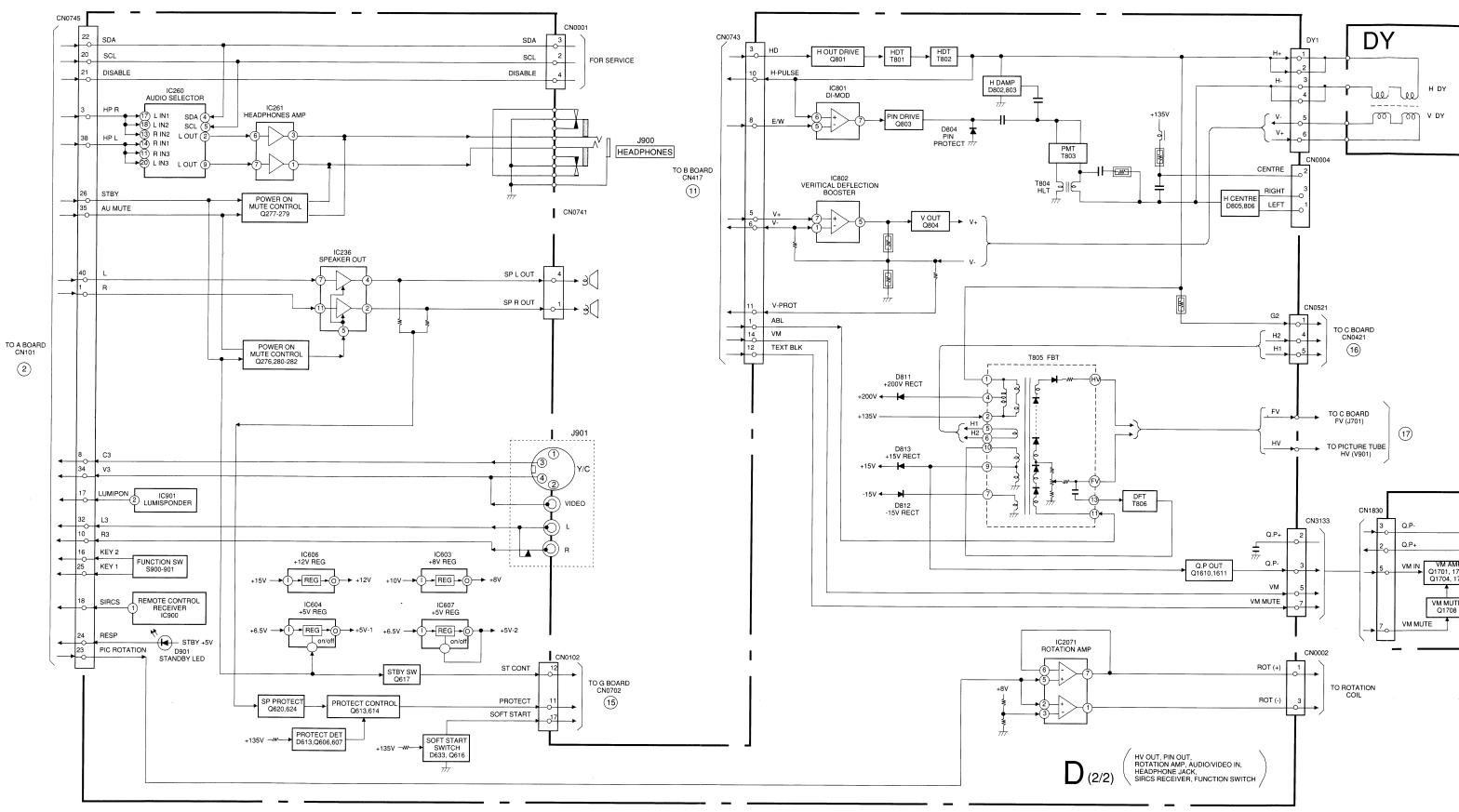


MC-Service



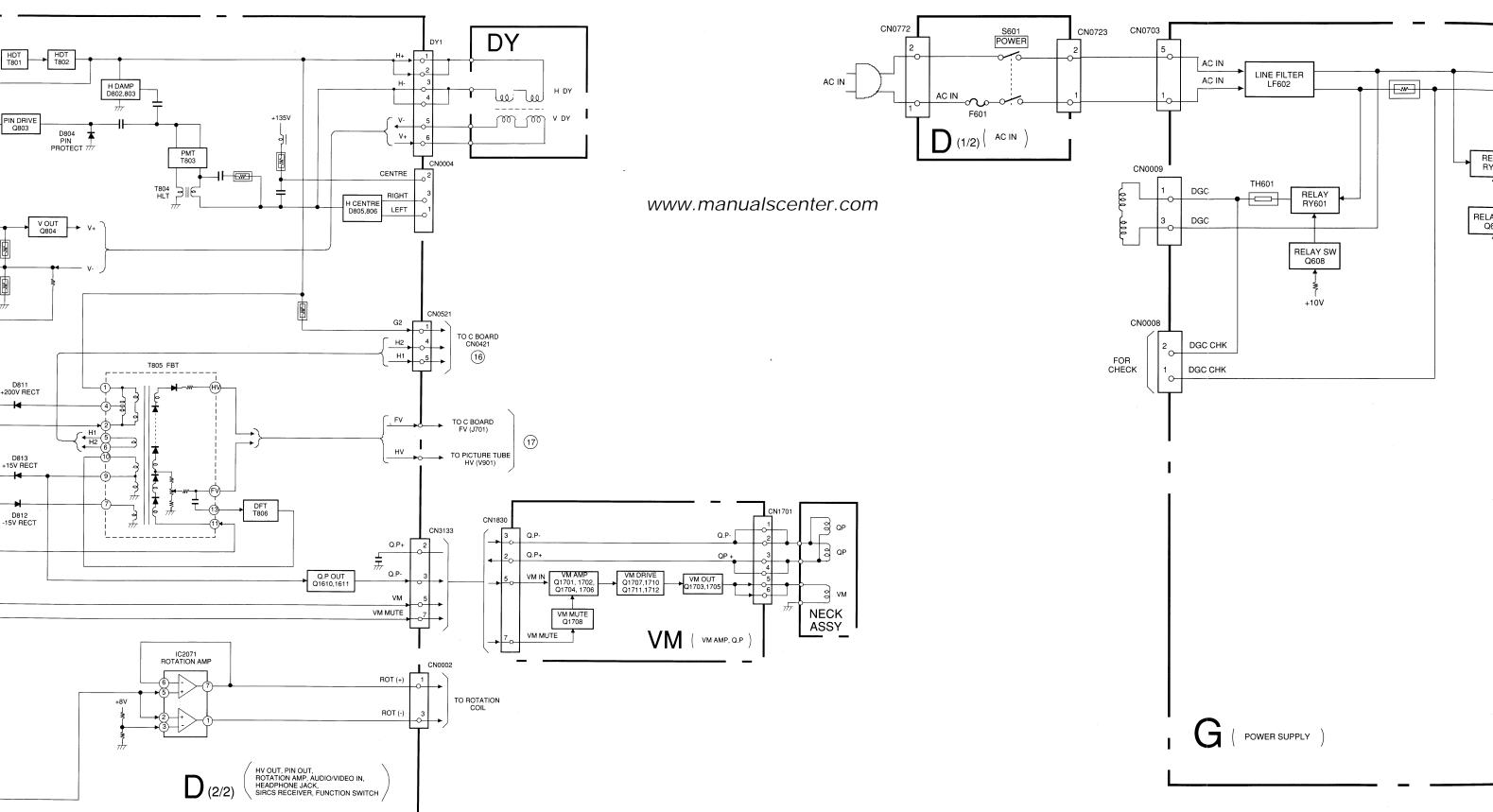
MC-Service

BLOCK DIAGRAM (4)



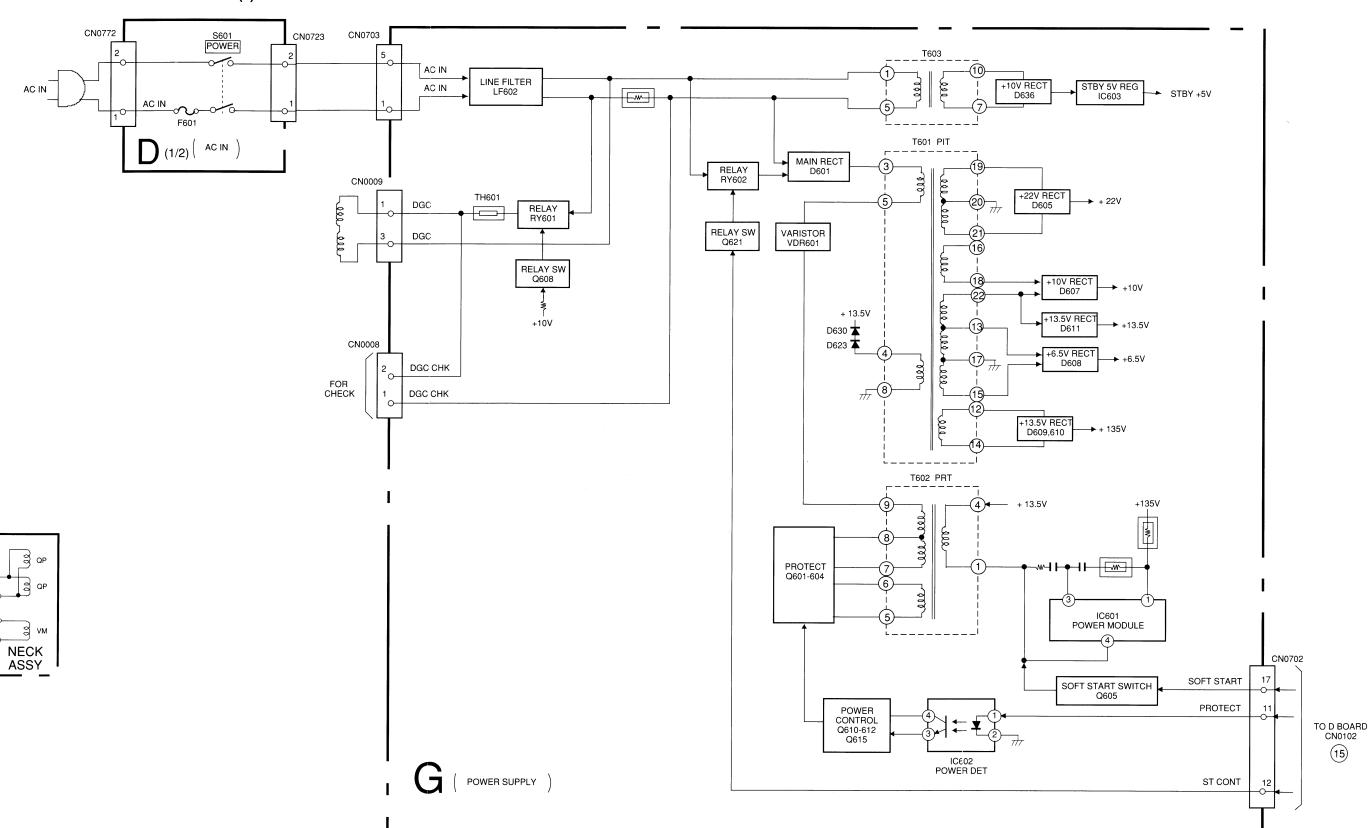
MC-Service

BLOCK DIAGRAM (5)



MC-Service

BLOCK DIAGRAM (5)

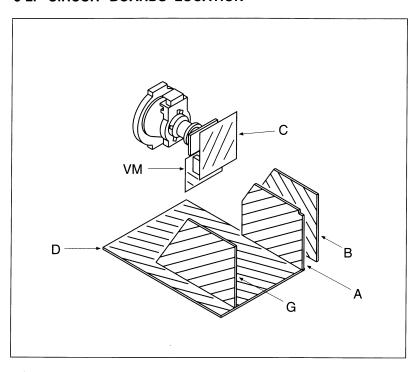


MC-Service

AV INPUT/OUTPUT INTERFACE, COLOR DECODER SOUND PROCESSOR, MICRO CONTROLLER, MEG

A Board < Conductor Side >

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms. k = 1000, M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power ¼ W

: nonflammable resistor. : internal component.

: panel designation, or adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

: earth - ground. : earth - chassis. : no mounted.

Note: The components identified by shading and marked ⚠ are critical for safety. Replace only with the part number specified.

Note: Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Reference information

RESISTOR : RN METAL FILM : RC SOLID : FPRD NONFLAMMABLE CARBON NONFLAMMABLE FUSIBLE : RS NONFLAMMABLE METAL OXIDE : RB NONFLAMMABLE CEMENT : RW NONFLAMMABLE WIREWOUND $: \times$ ADJUSTABLE RESISTOR COIL : LF-8L MICRO INDUCTOR CAPACITOR : TA TANTALUM : PS STYROL : PP POLYPROPYLENE : PT MYLAR : MPS METALIZED POLYESTER : MPP METALIZED POLYPROPYLENE : ALB **BIPOLAR** : ALT HIGH TEMPERATURE

- Readings are taken with a colour-bar signal input.
- Readings are taken with $10M\Omega$ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.

HIGH RIPPLE

- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : signal path. (RF)

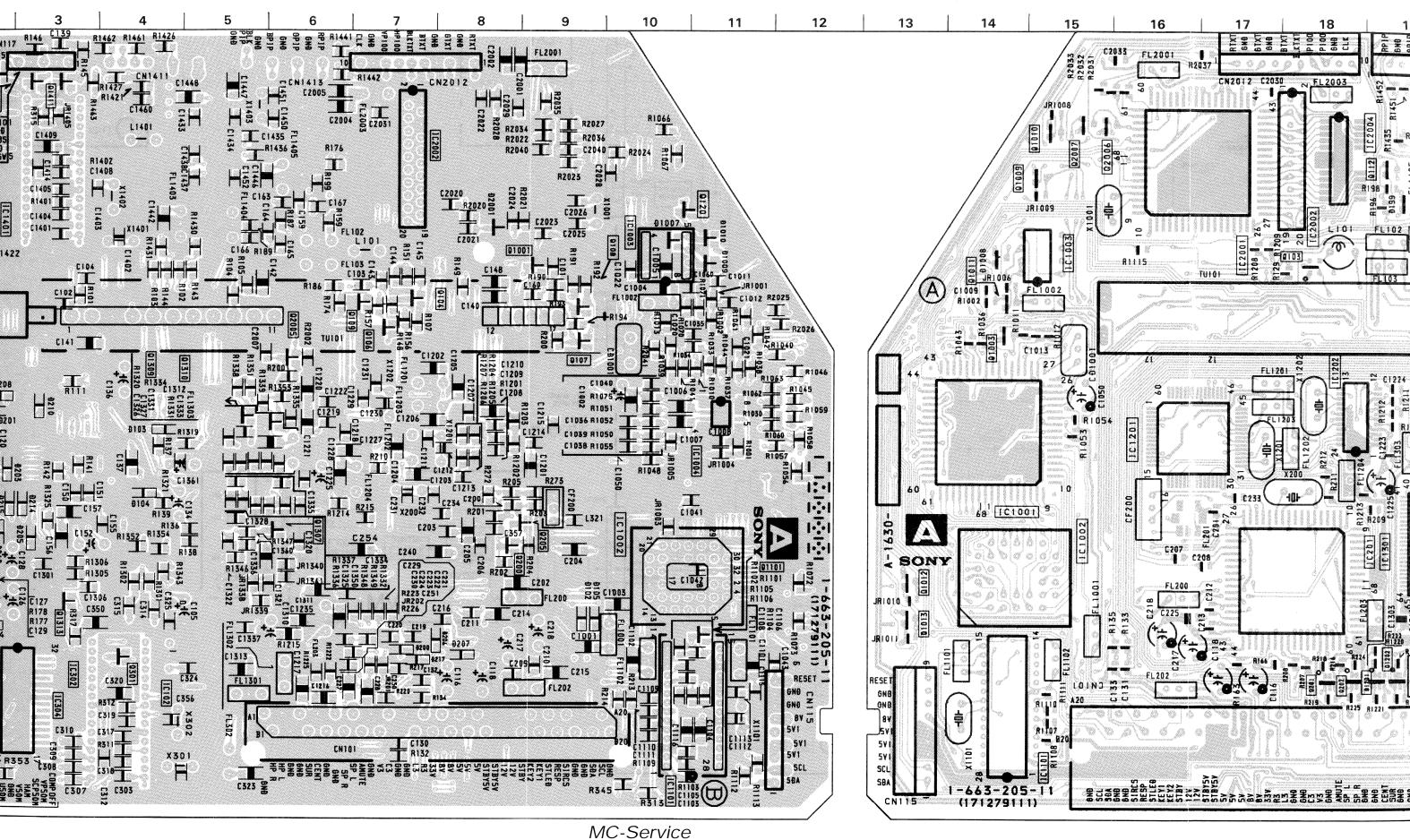
A BOARD

1	С	Q1404	B-21
IC101	E-22	Q1411	A-3
IC102	H-4	Q1412	A-2
IC104	C-19	Q2005	D-6
IC201	G-19	Q2006	B-15
IC302	H-3	Q2007	B-15
IC303	1-22	DIC	DDE
IC1001	F-14	D102	G-9
IC1002	G-10	D103	E-4
IC1003	C-10	D104	F-4
IC1004	E-11	D105	G-9
IC1401	C-2	D199	C-19
IC1403	B-21	D200	H-7
IC2001	C-17	D201	E-2
TRANS	ISTOR	D202	D-2
Q102	E-23	D203	F-3
Q103	C-18	D204	H-2
Q104	D-8	D205	F-3
Q106	D-7	D206	H-8
Q107	D-9	D207	H-8
Q108	C-10	D208	E-2
Q109	D-7	D209	E-2
Q110	E-22	D210	E-3
Q112	B-19	D211	F-2
Q120	C-11	D212	G-2
Q200	G-8	D213	G-2
Q205	F-9	D214	F-3
Q301	H-4	D215	F-2
Q302	I-22	D217	H-7
Q315	H-23	D218	G-1
Q316	I-24	D219	H-1
Q317	I-24	D220	H-1
Q318	H-22	D221	G-1
Q1001	C-9	D223	E-2
Q1301	H-22	D301	H-22
Q1305	G-21	D1007	C-10
Q1311	G-22	D1008	C-14
Q1312	F-22	D1009	C-11
Q1401	A-23	D1010	C-11
Q1402	B-23	D1405	B-21
Q1403	B-23	D2001	C-8

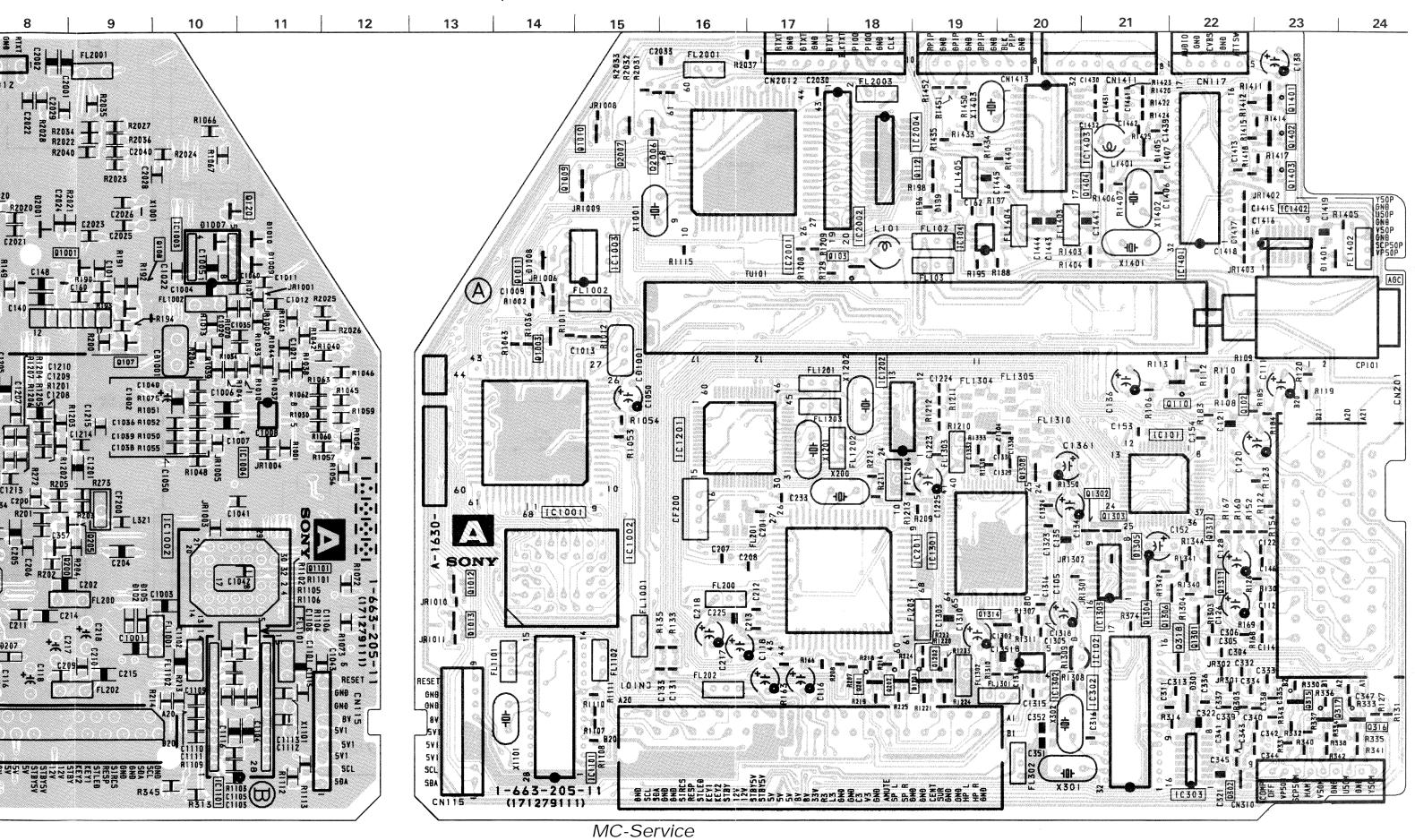
	1	2		3	4		5	6
А		138 £138	CN117 R1	(139 - 1		T	GREE GREE	99 98 P
					R1427 T	611 C1448		CN1413
В			0101 J N0 VBS N0	C1409	E L140	3	n —	다. 435 년 1436 중 R1
В			Syl 5 - C	基 1405 T	R1402 C1408	HALLAN FLAGS	104.52	
С	C1421 C1420 FL1402	\Box		1401 <u>T</u> 1404 <u>T</u> 1401 <u>T</u>	HX1401	H RIAS H	C166 R189	
				C102			1.66 R198 3	☐ \$R186 _]
D	8 R155	CP101			<u> </u>	3		R174 = R2002
-	z	11 + B		<u>C141</u>	#1320 C1	0310	R: 35:	
E			0208 	# <u>#</u> ;	1€ 1336 1€ 1336	334 FLI303 FLI312 FLI303 FLI313 RLI333	CS SCHOOL ASSOCIATION TO ANNOU	R1353 2 2 C1
			0201 CI20 1 - 1		0103			
F	88	3 8		21 ≅ [:]		를 (136) - 를 (136)		
					157 0104 	R139 H	上 [1328] 上 上 上	
G			12 × 12 × 12 × 12 × 12 × 12 × 12 × 12 ×		R1306 = R1305 H	工 計 38	13463 13463 1333 1333 1333 1333	I JR1340
		\$81		127 — 33 178 © 33 177 129	C1306 C350 C350	3 55 C 5 C 5 C 5 C 5 C 5 C 5 C 5 C 5 C 5	JR 1339	C C1235
н	学会	1025 25 -	64 € •	8 '	F	<u> </u>	E 1313 +	RIZIS RIZIS
	L	下 1346 下 1375 上 2323		[C302]	C320 E3	C324 E C356	FL1301	7,5
	귀 II IB 등	18322 - 1 1 - 2		15304 2510 1	C319 士 C317 工 R311 士	Т Т	FL 302	
	CNS1D	9	F R353	2309 ± 1308 ± 13	C318	×301		H H B SUR CENT
	R3	51 R35Z		750 750 750 750 750 750 750 750 750 750	7 및 C303 국		5	
,								

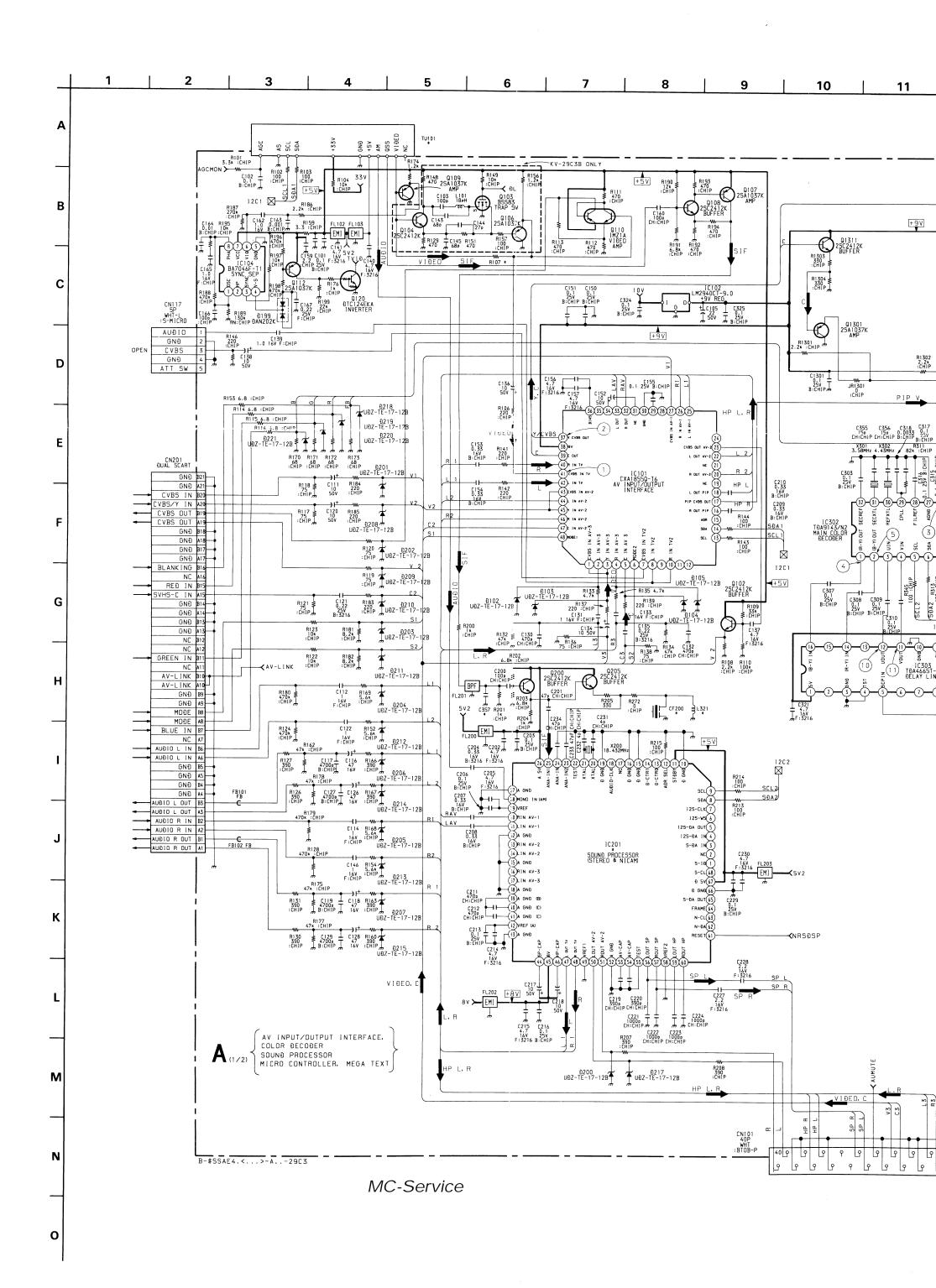
MC-Service

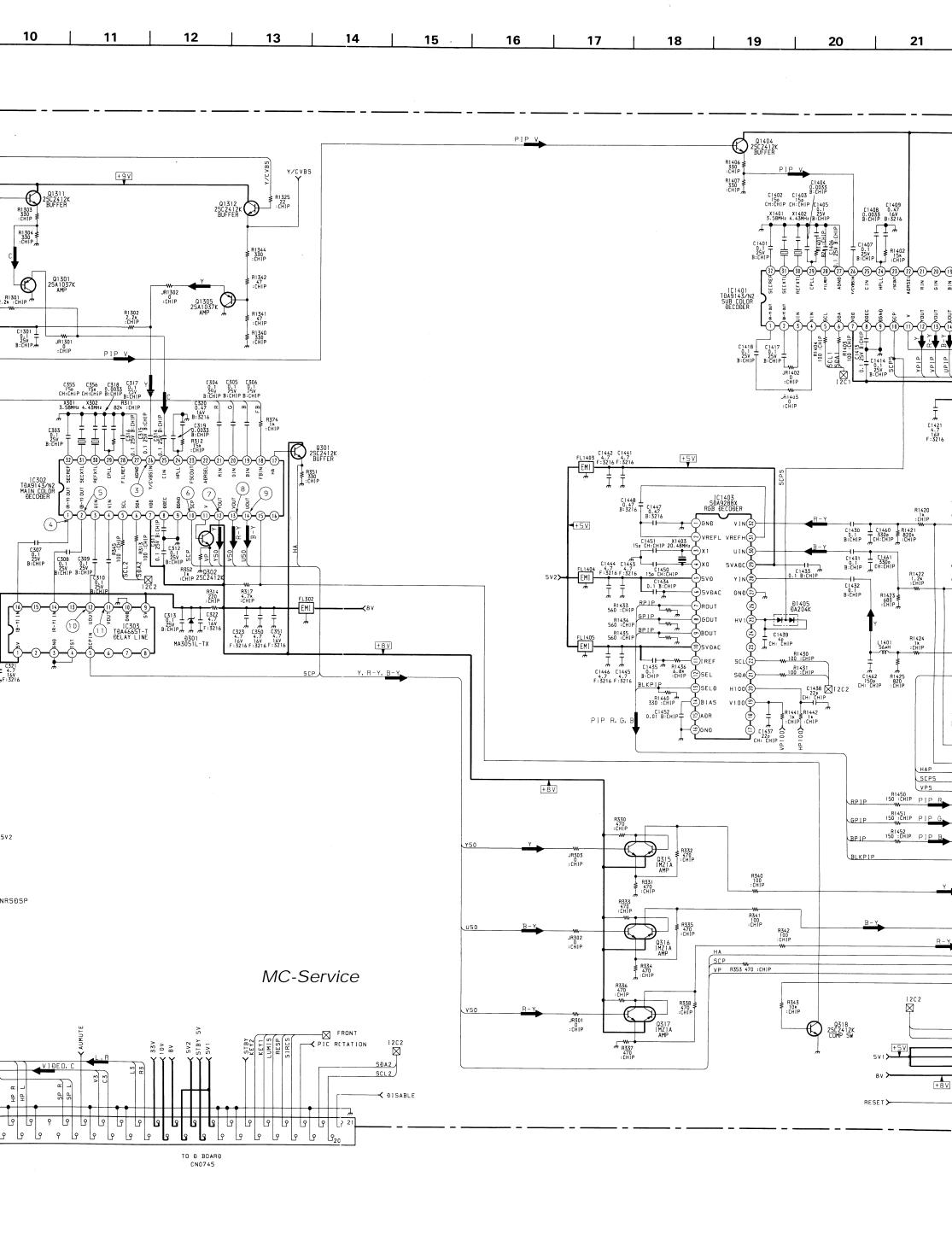
A Board < Component Side >

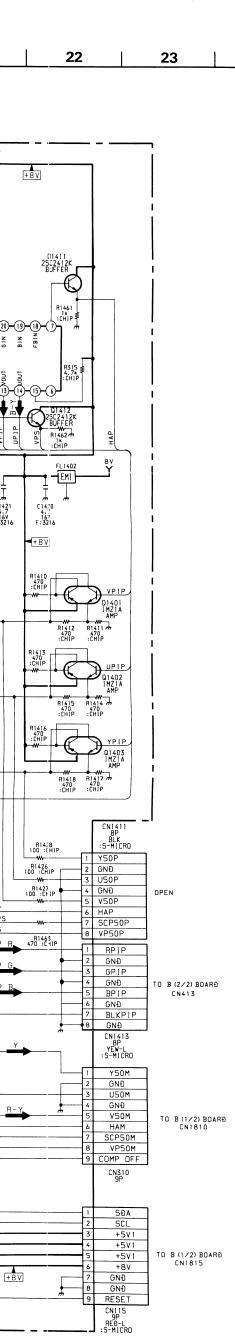


A Board < Component Side >









WAVEFORMS A BOARD 1 SECAM 2 PAL 1 PAL 1.0 Vp-p (H) 1.0 Vp-p (H) 2.0 Vp-p (H) 2 SECAM (3) PAL (3) SECAM 2.0 Vp-p (H) 1.0 Vp-p (H) 1.2 Vp-p (H) 6 (5) 0.7 Vp-p (H) 4.5 Vp-p (H) 0.6 Vp-p (H) 9 (8) (7)1.0 Vp-p (H) 1.0 Vp-p (H) 1.4 Vp-p (H) 1.5 Vp-p (H) 1.0 Vp-p (H)

A (1/2) BOARD TRANSISTOR VOLTAGE TABLE

Т	Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter		
Q102	1.9	4.7	1.3		
Q105	0.08	4.5	0.08		
Q107	4.4	1.7	5.0		
Q108	1.8	4.4	1.2		
Q112	4.3	4.9	5.0		
Q120	4.6	0.1	0.1		
Q301	0.5	8.0	0.4		
Q302	-	8.0	0.3		
Q318	0.1	5.2	0.1		
Q1201	8.6	5.0	9.2		
Q1202	0.7	5.0	9.2		
Q1301	1.9	-	0.2		
Q1302	-	-	0.6		
Q1303	0.8	-	1.5		
Q1304	2.2	-	0.1		
Q1305	2.0	-	0.1		
Q1306	1.7	-	-		
Q1307	-	3.4	0.1		
Q1308	3.5	4.7	2.9		
Q1309	0.9	0.1	1.6		
Q1310	1.0	0.1	1.6		
Q1311	4.5	9.0	3.9		
Q1312	4.5	9.0	-		
Q1313	4.6	0.7	0.1		
Q1314	4.8	4.7	4.3		
Q1404	4.5	7.8	3.8		
Q1411	0.5	8.0	0.6		
Q1412	0.1	8.0	0.1		
Q1201	2.6	8.6	2.1		
Q1202	2.6	8.6	2.1		

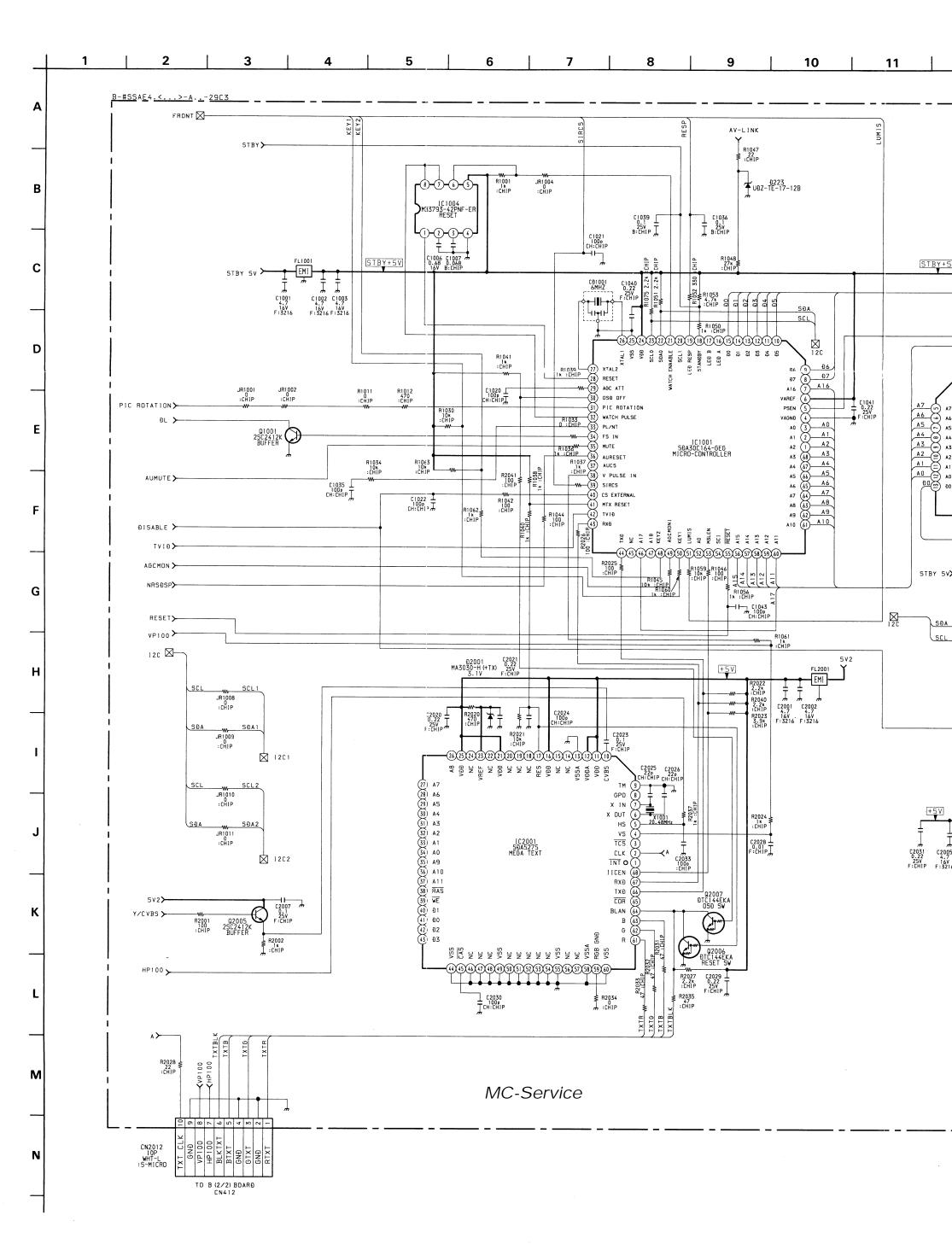
A (1/2) BOARD IC VOLTAGE TABLE

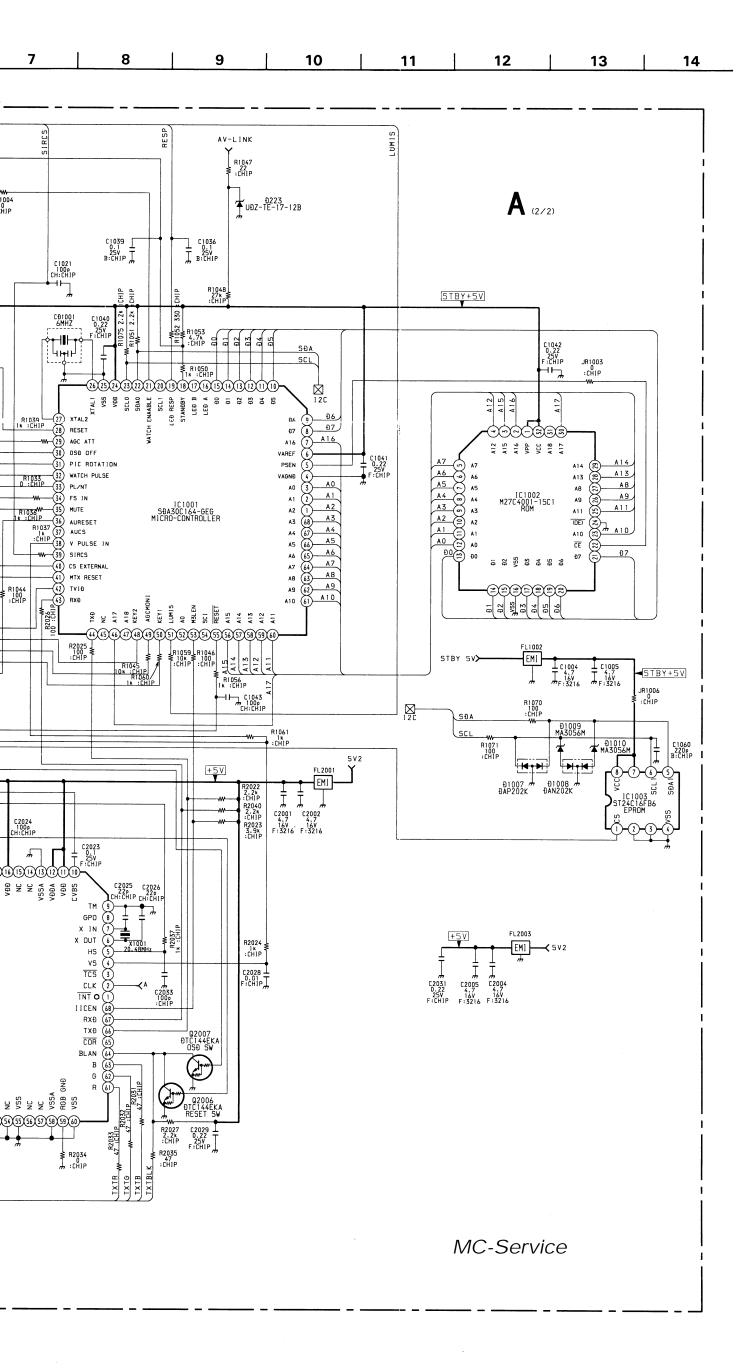
		IC Voltage	Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V
	4	0.5		4	4.7
	5-6	4.7		13	4.7
	7	2.4		31	4.7
	8-9	4.7		35	4.7
	20	2.4		37	2.7
	24	4.4		39	2.2
	25	8.8		40	2.7
	26	4.4	IC1201	41	4.7
	28	3.8		45	4.8
	29	2.7		29	2.7
IC201	30-31	3.8		30-31	3.8
	39-42	3.8		39-42	3.8
	44	6.2		44	6.2
	45	8.0		45	8.0
	46	7.0		1	5.0
	47-48	3.8	_	5	0.6
	50-51	3.7	IC 303	11-12	3.0
	53-54	3.8		14	1.4
	56-57	1.2		16	1.2
	61	4.8		1-2	2.0
	1-2	2.0	1	3-4	2.4
	3-4	2.4		5	3.5
	5	3.0		6	4.0
	6	4.0		7	7.8
	7	8.0		8	5.0
	8	5.0		10	0.8
	10	0.5	1	12	2.4
	12	3.2		13-14	2.6
	13-14	2.6	IC1401	15	8.0
IC302	15	8.0		17	0.3
	17	0.3		22	7.8
	19	1.6	1	24	3.6
	21	1.0	1	26	3.3
	23-24	4.0	-	28	3.5
	26	3.7		29	4.3
	28	3.5	1	30	2.6
	29	5.0	1	31	2.6
ŀ	30	2.5	1 1	32	3.8
	31	2.5		- <u>-</u>	
	32	2.0			

MC-Service

A BOARD * MARK

Model Ref. No.	29C3A	29C3B	29C3D	29C3E	29C3K	29C3R
C357	39PF	39PF	39PF	_	39PF	39PF
CF200	6.5MHz	6.5MHz	6.5MHz	_	6.5MHz	6.5MHz
IC201	MSP3400C-PP-C6-T-ND	MSP34103-PS-F7-T-ND	MSP3400C-PP-C6-T-ND	MSP3410B-PS-F7-T-ND	MSP3400C-PP-C6-T-ND	MSP3400C-PP-C6-T-ND
L321	10UH	OUH	10UH	_	10UH	10UH
TU101	TUVIF (AEP)	TUVIF (FR)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)



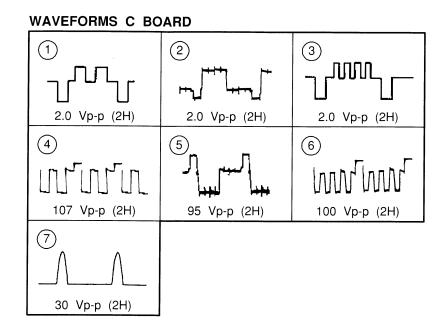


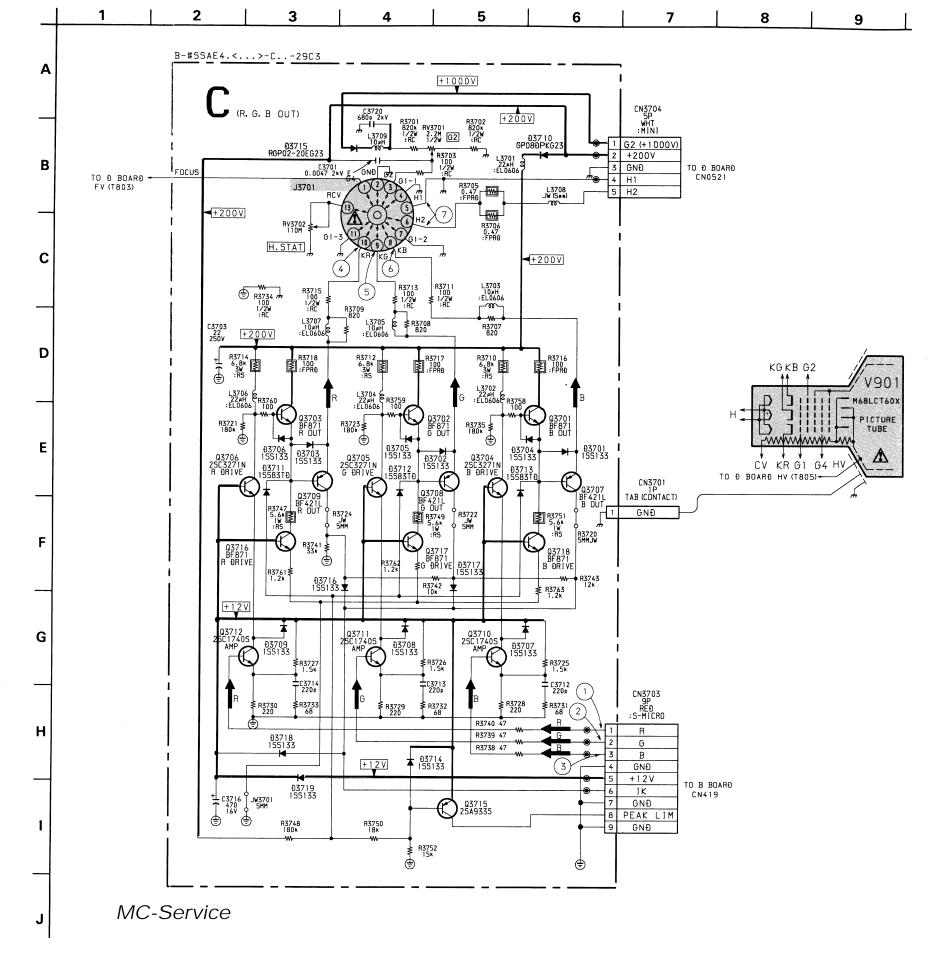
A (2/2) BOARD IC VOLTAGE TABLE

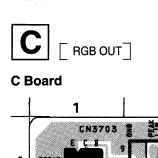
		IC Vo	Itage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V
	1-5	4.6		1	4.8
	7-8	4.6		2	1.1
	10	4.6		4	0.9
	17	4.6		5	0.3
	23	4.6		6-7	2.4
IC101	29	4.6	IC1101	8	1.4
	31	4.6		9	4.7
	34	4.6		10	1.7
	36	4.6		11	1.5
	38	9.0		16	4.0
	40-47	4.6		18-20	4.7
	5	2.4		21	2.5
	6	4.8	1	22	2.3
	19	3.6		2	0.4
	20	0.1		5	0.3
	24	4.8		6-7	1.6
	26	2.1		8	4.0
	27	2.3		10	1.0
	28	4.6	IC2001	11-12	4.7
	30	0.1	102001	16	4.7
	31-32	2.4		21	4.7
	33	4.8		23	2.9
IČ1001	36	4.1		25	4.7
101001	38	0.1		66	4.7
	39	0.6		68	4.7
	40	4.8			
	41	0.1			
	42	4.8			
	43	4.4			
	44	4.1			
	48	4.8			
	49	2.2			
	50	4.8			
	52	4.8			
	54	4.8			

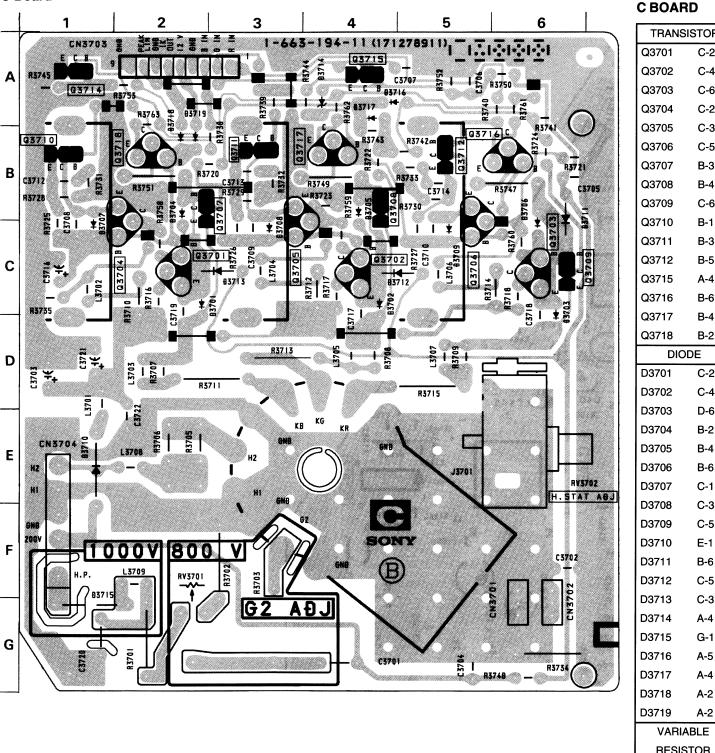
A (2/2) BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table				
Ref No	B Base	C · Collector	E Emitter	
Q1001	0.1	0.7	0.1	
Q1004	0.1	0.7	-	
Q1101	3.3	5.0	2.6	

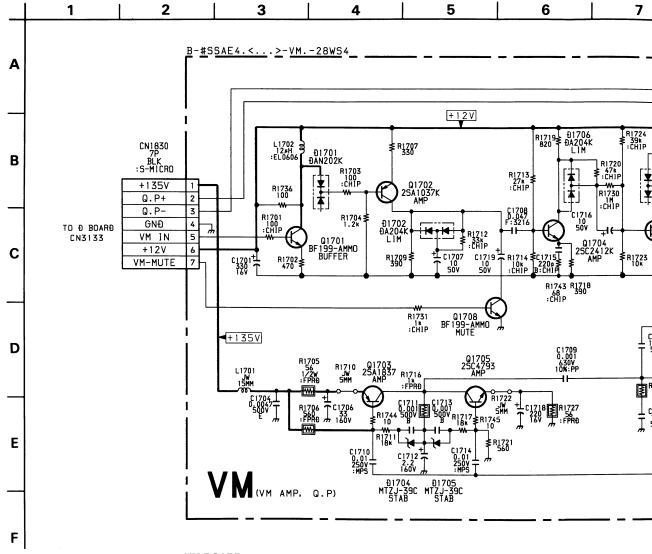








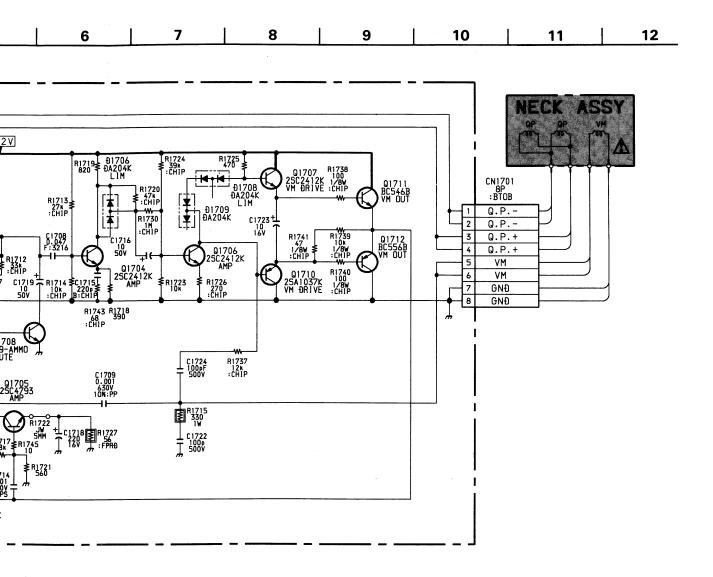
C BOARD				
TRANS	ISTOR			
Q3701	C-2			
Q3702	C-4			
Q3703	C-6			
Q3704	C-2			
Q3705	C-3			
Q3706	C-5			
Q3707	B-3			
Q3708	B-4			
Q3709	C-6			
Q3710	B-1			
Q3711	B-3			
Q3712	B-5			
Q3715	A-4	l		
Q3716	B-6			
Q3717	B-4			
Q3718	B-2			
DIO	DE			
D3701	C-2			
D3702	C-4			
D3703	D-6			
D3704	B-2			
D3705	B-4			
D3706	B-6			
D3707	C-1			
D3708	C-3			
D3709	C-5			
D3710	E-1			
D3711	B-6			
D3712	C-5			
D3713	C-3			
D3714	A-4			
D3715	G-1			
D3716	A-5			
D3717	A-4			
D3718	A-2			
D3719	A-2			
VARIABLE				
RESISTOR				
RV3701	F-2			
RV3702	E-6			



VM BOARD TRANSISTOR VOLTAGE TABLE

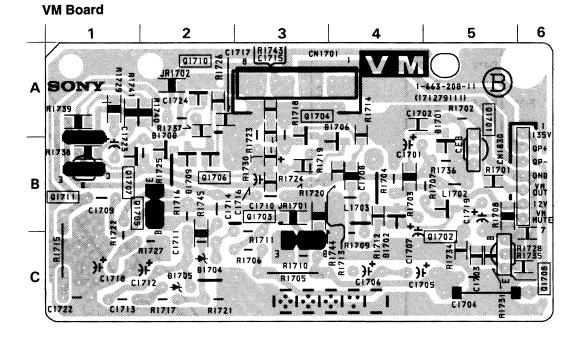
Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter	
	Dase	Collector	CHILLE	
Q1701	0.8	0.7	2.1	
Q1702	1.8	0.2	1.9	
Q1703	24.0	13.3	24.0	
Q1704	0.5	1.2	0.4	
Q1705	0.1	12.3	-	
Q1706	0.4	1.1	0.3	
Q1707	1.5	2.1	1.4	
Q1708	-		-	
Q1710	1.1	- •	1.2	
Q1711	1.4	2.1	1.3	
Q1712	1.3	1.2	-	

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MC-Service





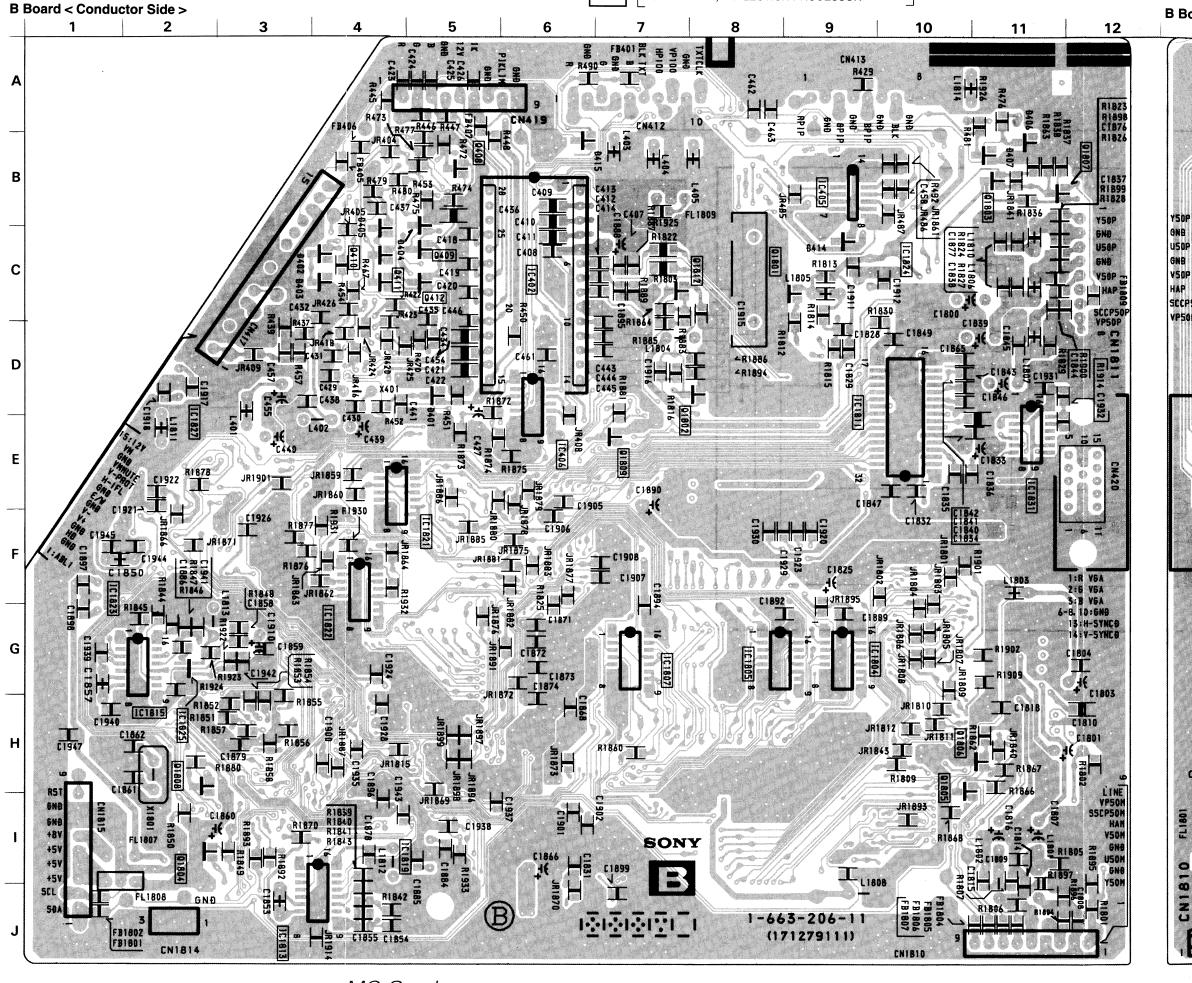
VM BOARD

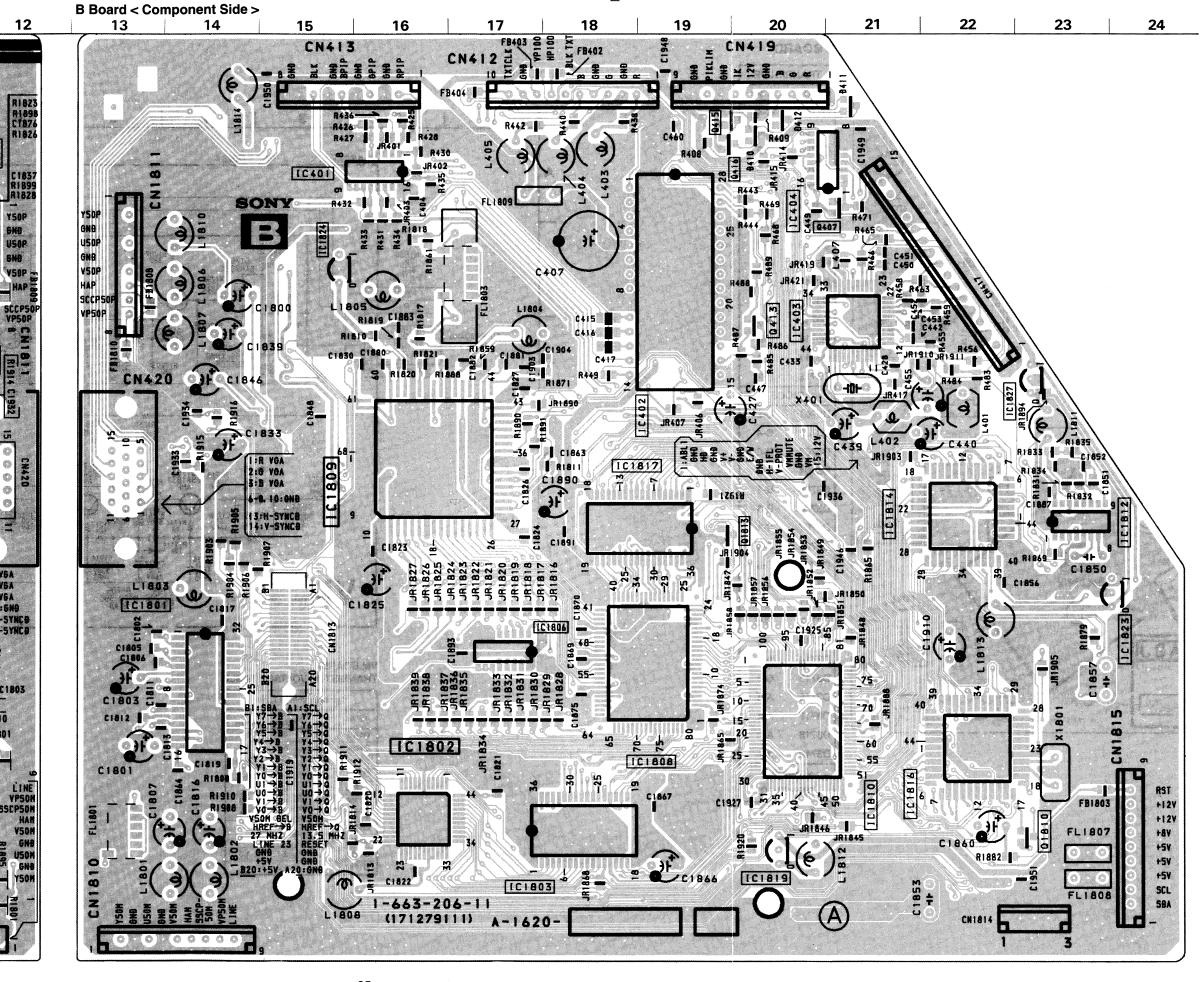
TRANSISTOR			
Q1701	A-5		
Q1702	C-5		
Q1703	B-3		
Q1704	A-3		
Q1705	B-2		
Q1706	B-2		
Q1707	B-1		
Q1708	C-6		
Q1710	A-2		
Q1711	B-1		
Q1712	A-1		
DIO	DE		
D1701	A-5		
D1702	C-4		
D1704	C-2		
D1705	C-2		
D1706	A-4		
D1708	B-2		
D1709	B-2		

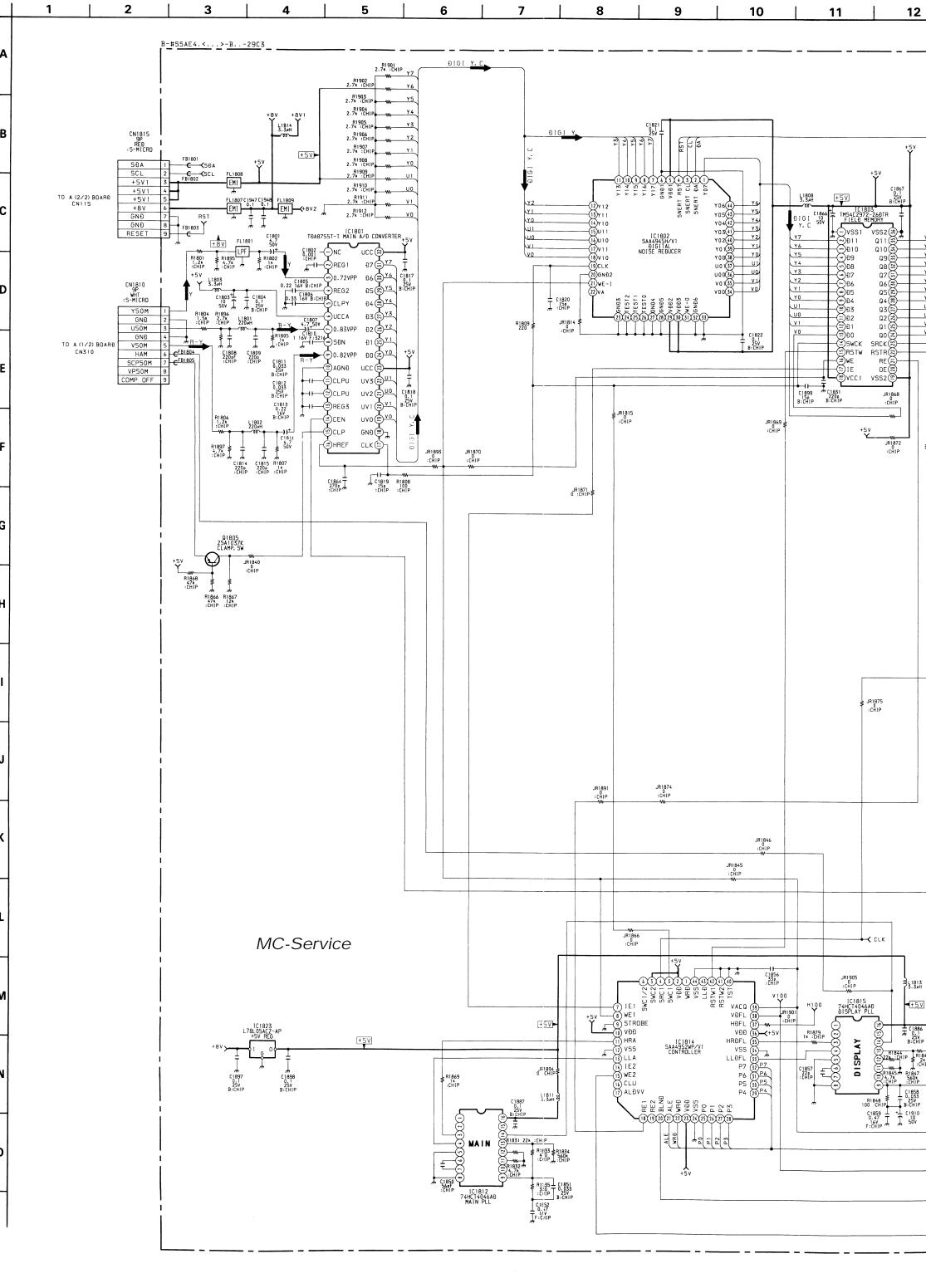
A/D, D/A CONVERTER, DIGITAL NOISE REDUCER, CRT DRIVER, DEFLECTION PROCESSOR

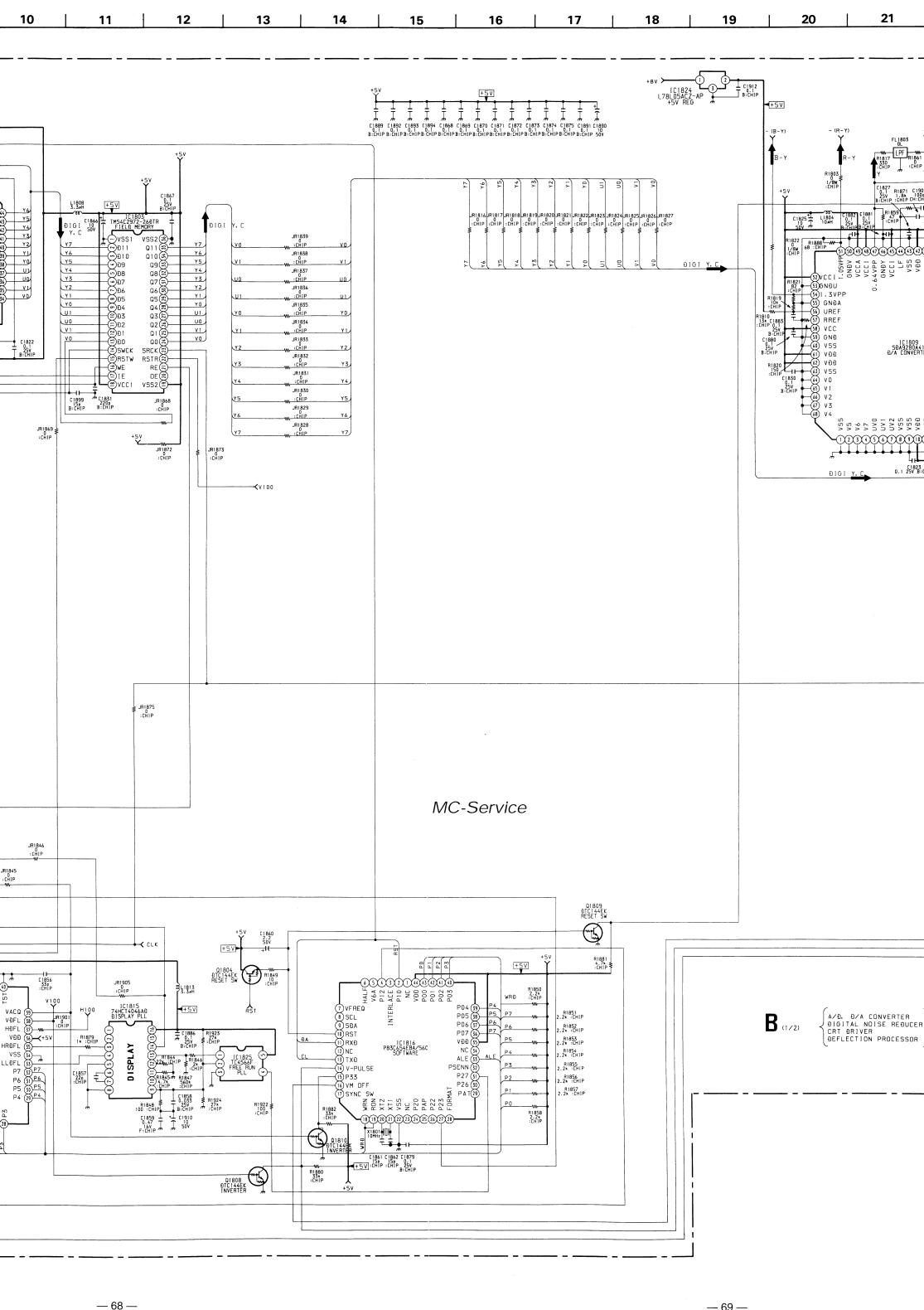
B BOARD

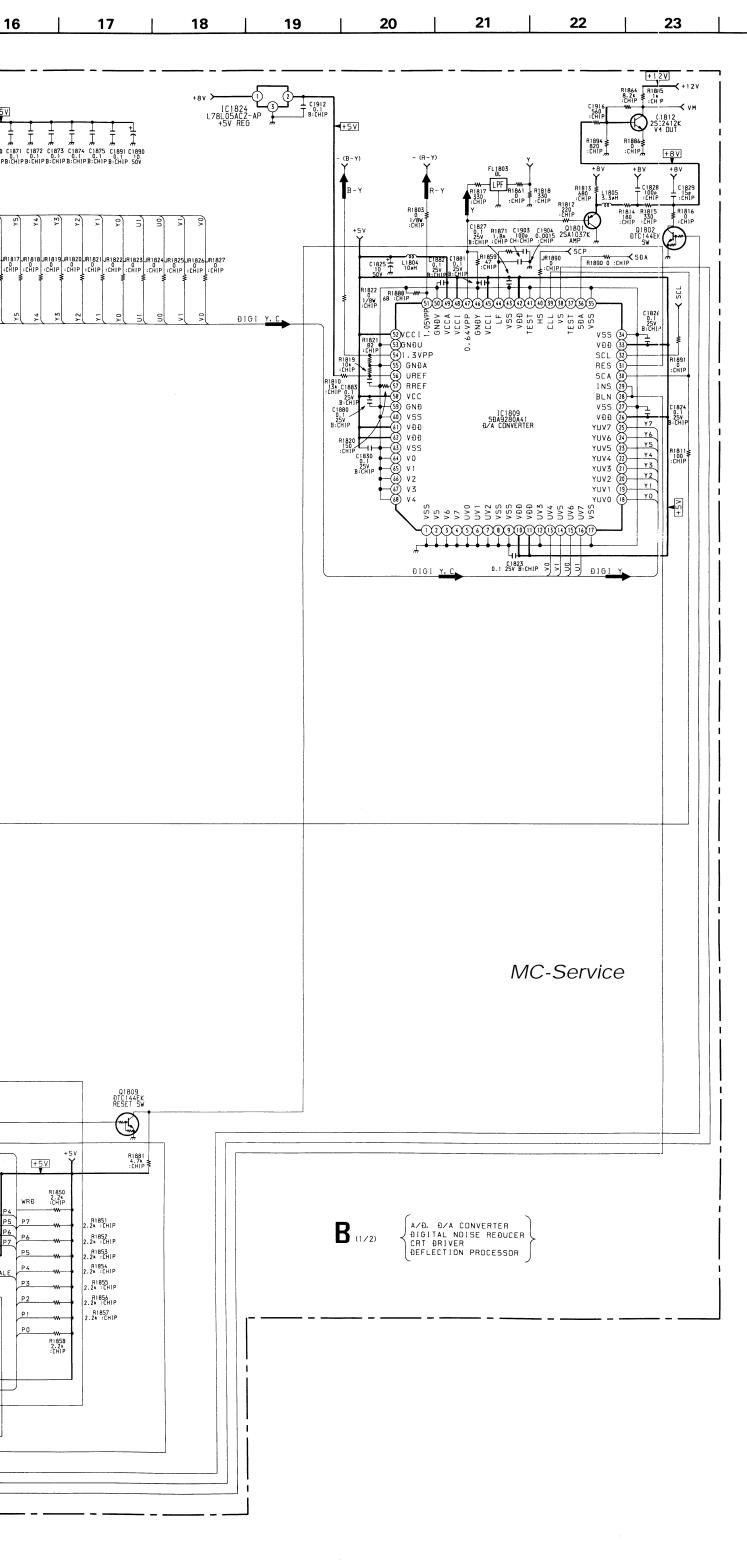
. 10)	DIC	DDE		
IC402	C-6	D401	D-5		
IC403	D-20	D402	C-3		
IC1801	G-13	D403	C-3		
IC1802	H-16	D410	B-20		
IC1803	I-17	D411	A-21		
IC1809	E-15	D412	A-20		
IC1812	F-24	D414	C-9		
IC1814	F-21	D415	B-7 ⁻		
IC1815	H-2				
IC1816	H-22				
IC1823	F-1				
IC1824	C-10	ŀ			
IC1825	H-2				
TRANSI	STOR				
Q415	A-19				
Q416	B-20				
Q1801	C-8				
Q1802	D-8				
Q1804	I-2				
Q1805	H-10				
Q1808	H-2				
Q1809	E-7				
Q1810	I-23				
Q1812	C-8				











B BOARD TRANSISTOR VOLTAGE TABLE

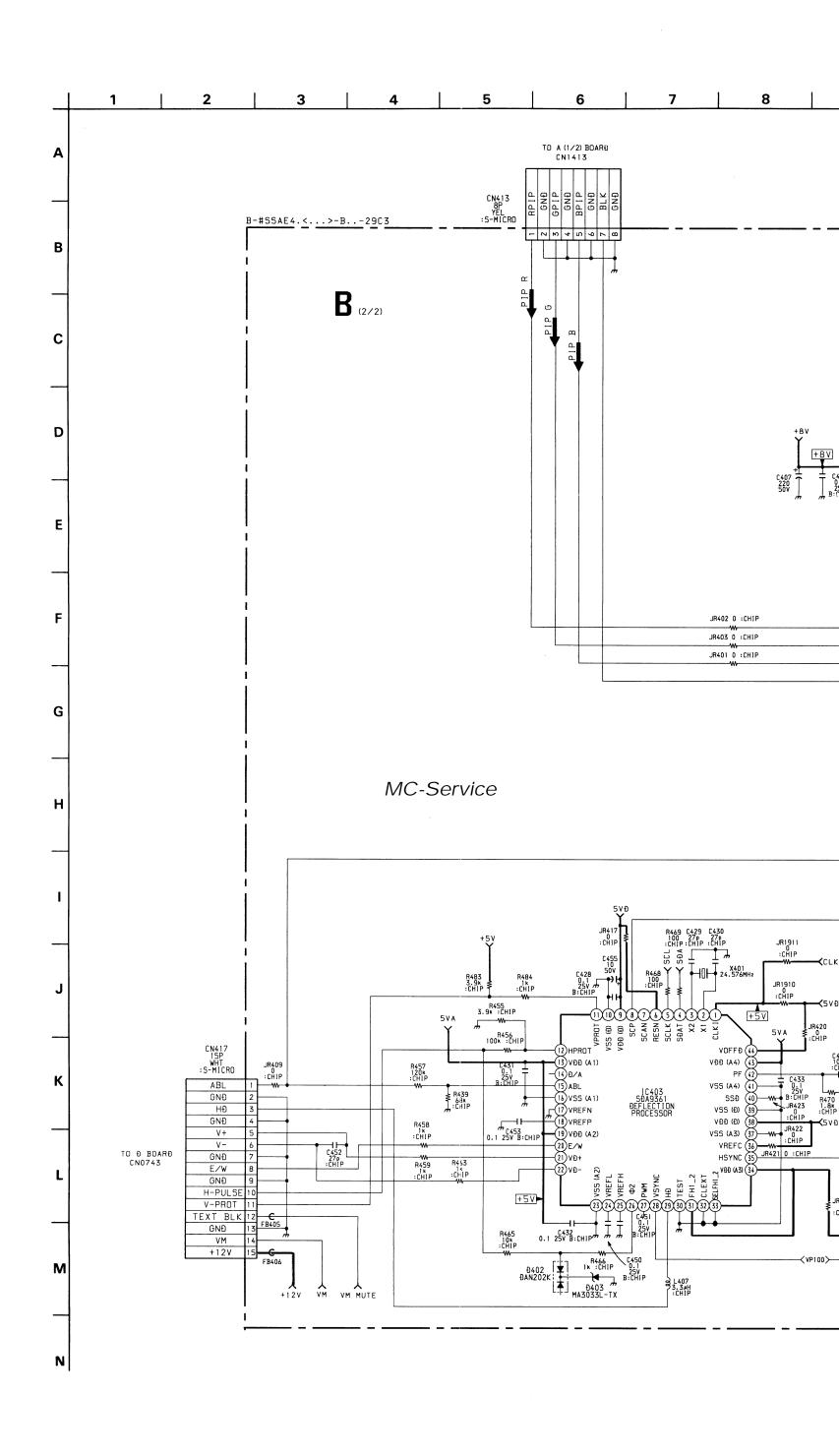
Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter	
Q411	0.1	4.8	4.8	
Q412	0.1	4.8	4.8	
Q415	1.8	0.1	-	
Q416	0.1	5.6	-	
Q1801	0.1	-	0.9	
Q1802	4.0	0.1	0.1	
Q1804	0.3	4.8	0.1	
Q1805	2.5	1.3	0.7	
Q1807	2.5	1.3	0.7	
Q1808	0.1	4.7	0.1	
Q1809	0.1	0.1	0.1	
Q1810	0.1	4.8	-	
Q1812	0.5	10.5	-	
Q1813	0.1	3.7	0.1	

B (1/2) BOARD IC VOLTAGE TABLE

IC Voltage Table							
Ref No	Pin No	Voltage (V)					
	3-4	2.4					
	6-7	0.7					
	9	4.6					
IC1812	11-13	4.7					
	14	0.3					
	16	5.0					
	3-4	2.4					
	6-7	0.7					
IC1912	9	4.6					
IC1813	11-13	4.7					
	14	0.3					
	16	5.0					
	1	5.0					
	2	2.3					
Į	3-4	2.5					
	6-7	0.8					
IC1815	9-11	3.0					
101013	12	4.5					
1	13	3.0					
	14	0.4					
	15	0.2					
	16	5.2					
	2	2.5					
	4-5	2.3					
IC1821	12	2.0					
101021	14	2.0					
1	15	2.6					
	16	8.0					
	2	2.9					
	4-5	2.6					
IC1822	12	2.3					
.0,022	14	2.1					
	15	2.8					
	16	8.0					

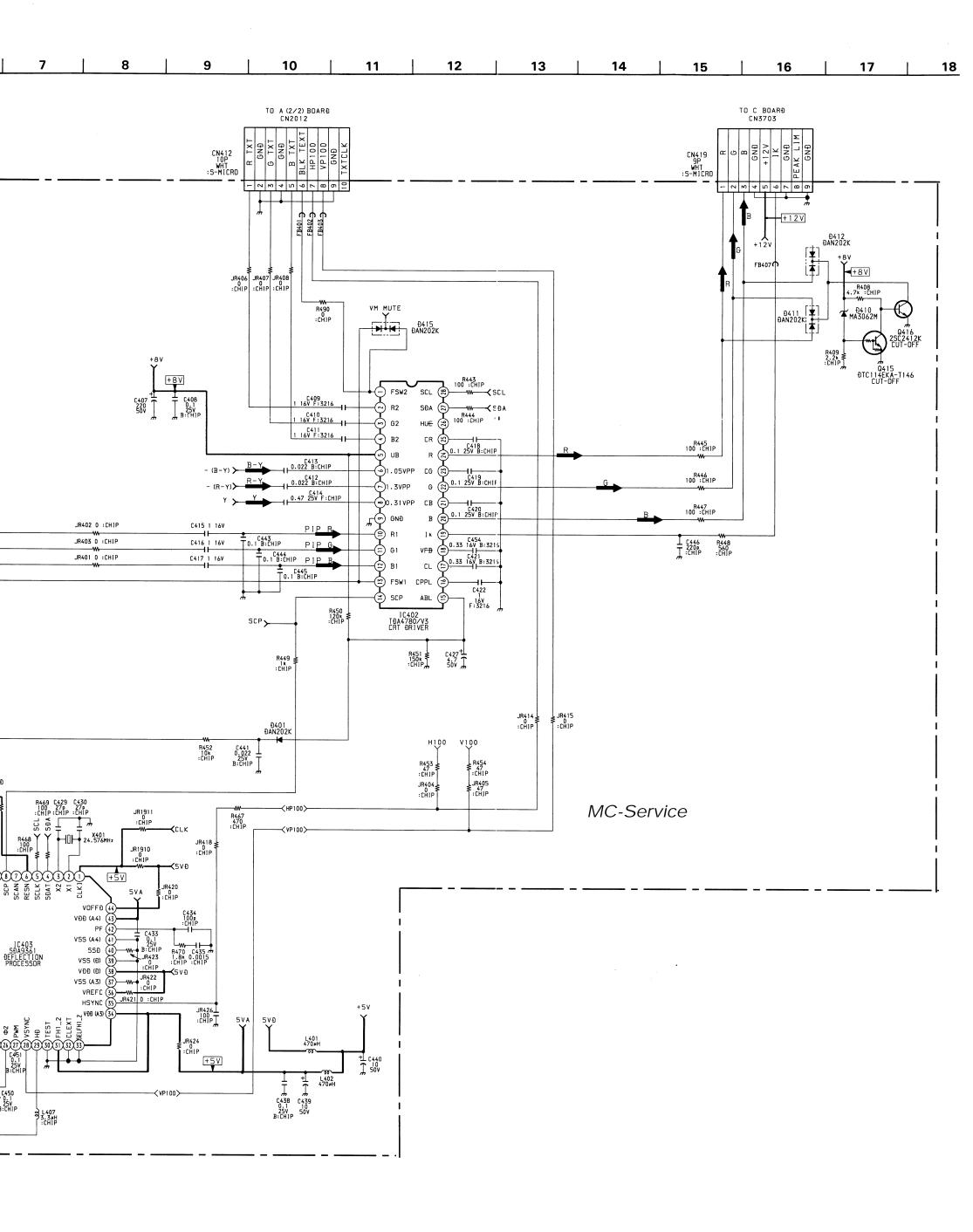
B (2/2) BOARD IC VOLTAGE TABLE

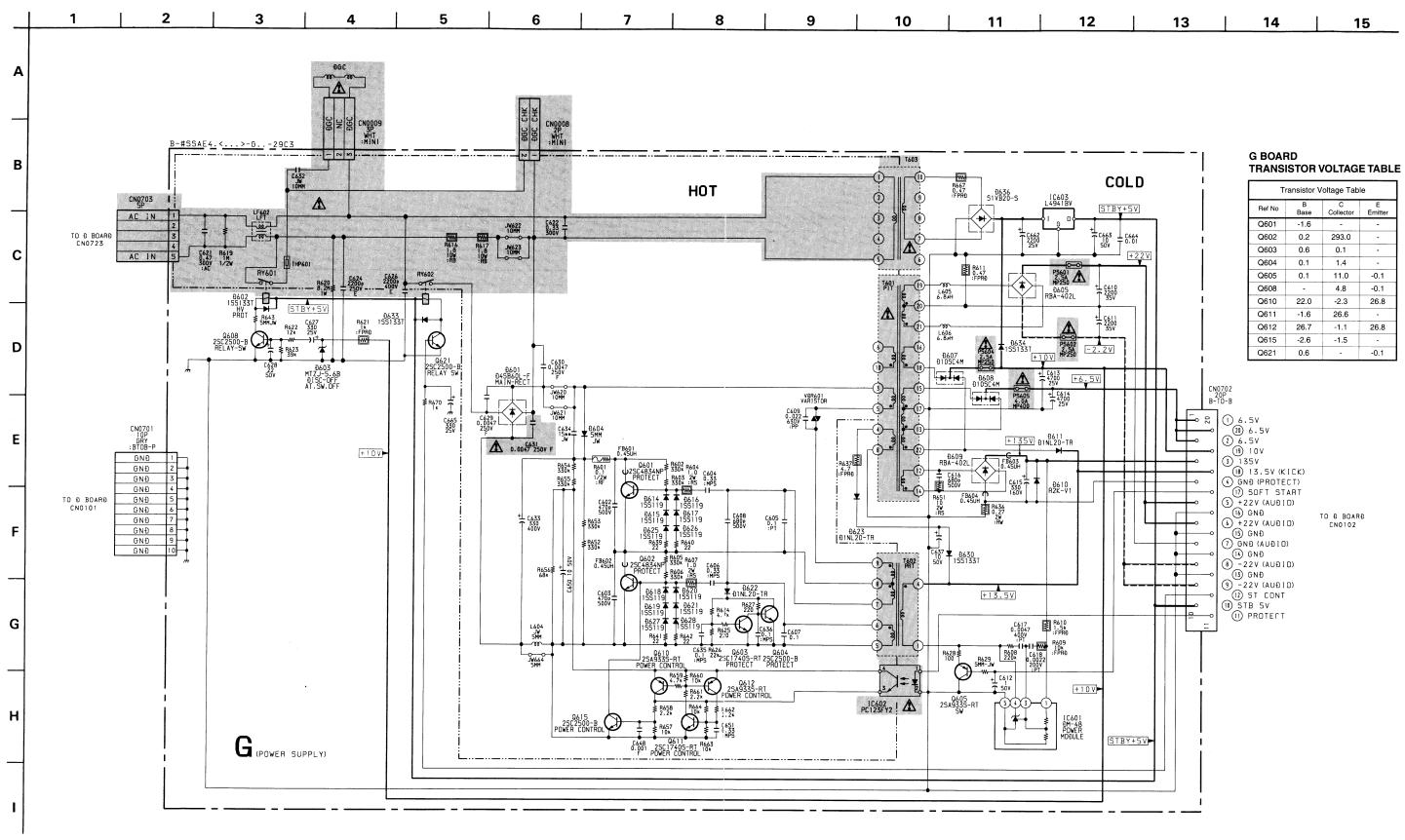
IC Voltage Table								
Ref No								
	2-4	5.0						
	5	7.8						
	6-7	4.0						
	8	3.7						
	10-12	5.0						
	14	0.7						
	16	4.7						
	17	5.1						
	18	1.8						
IC402	19	7.5						
	20	2.5						
	21	3.3						
	22	2.8						
	23	3.3						
	24	2.9						
	25	3.3						
	27	4.0						
	28	3.8						
	5	3.2						
IC405	9	3.2						
	13-14	3.2						
IC406	16	4.8						



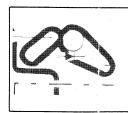
-41-

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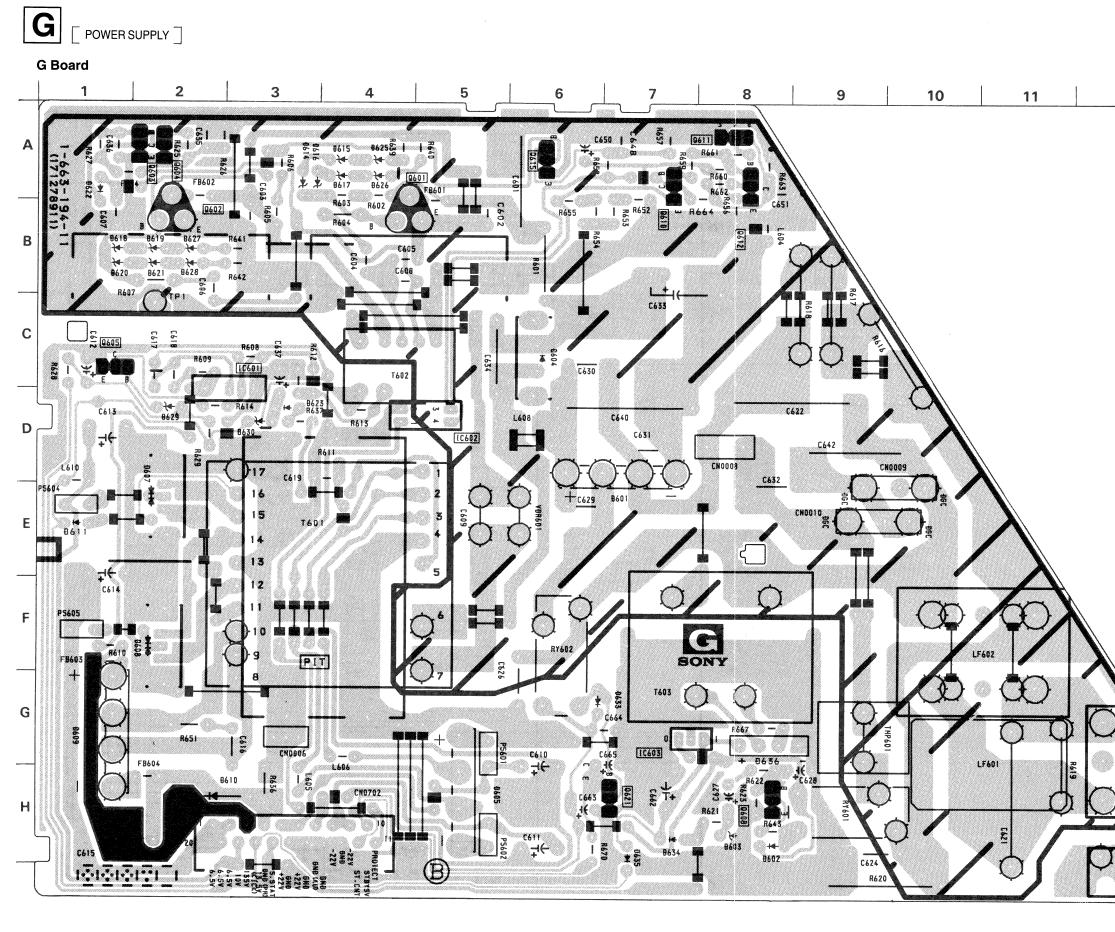


MC-Service

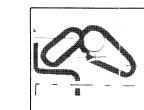


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

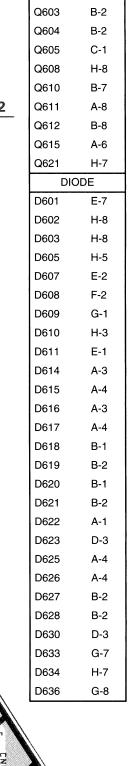


MC-Service



NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



G BOARD

IC601

IC602

IC603

Q601

Q602

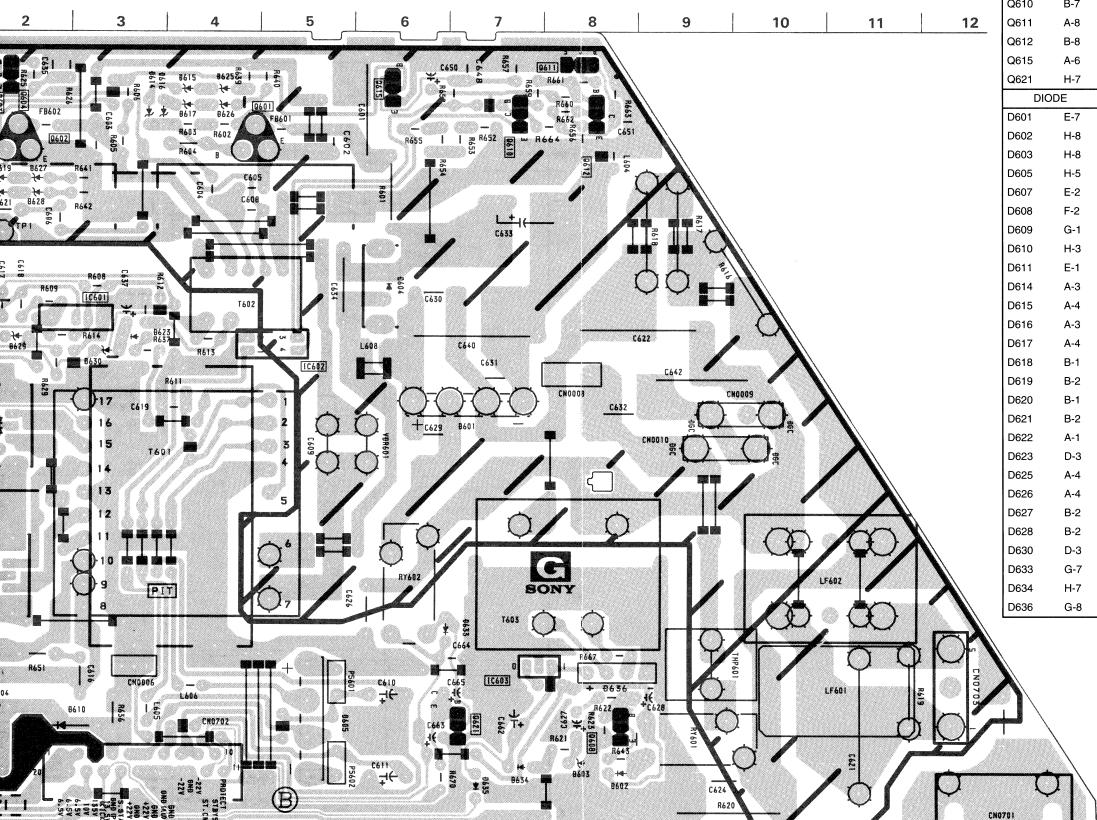
TRANSISTOR

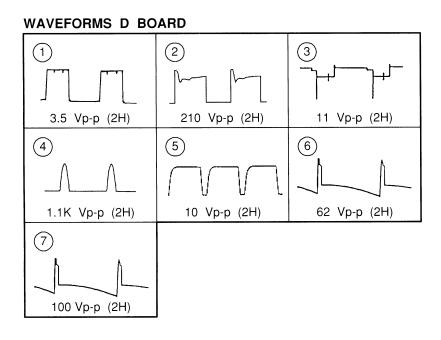
D-5

G-7

A-5

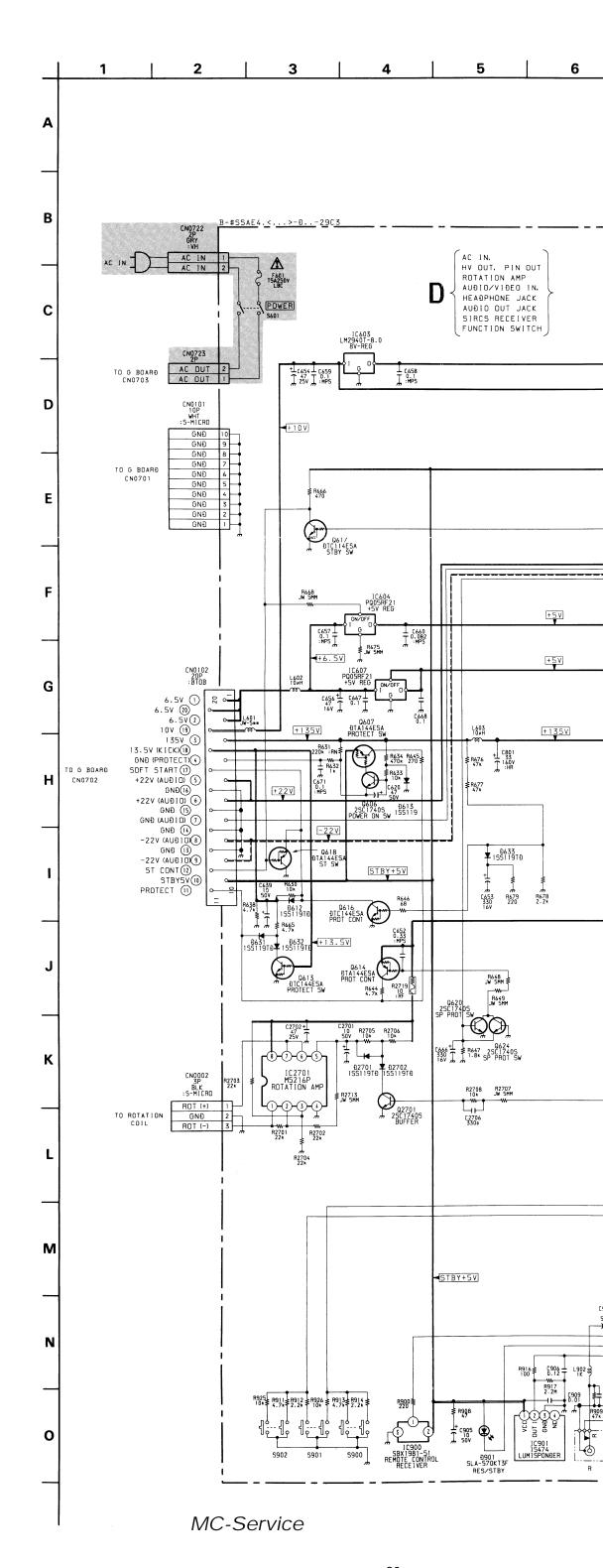
B-2

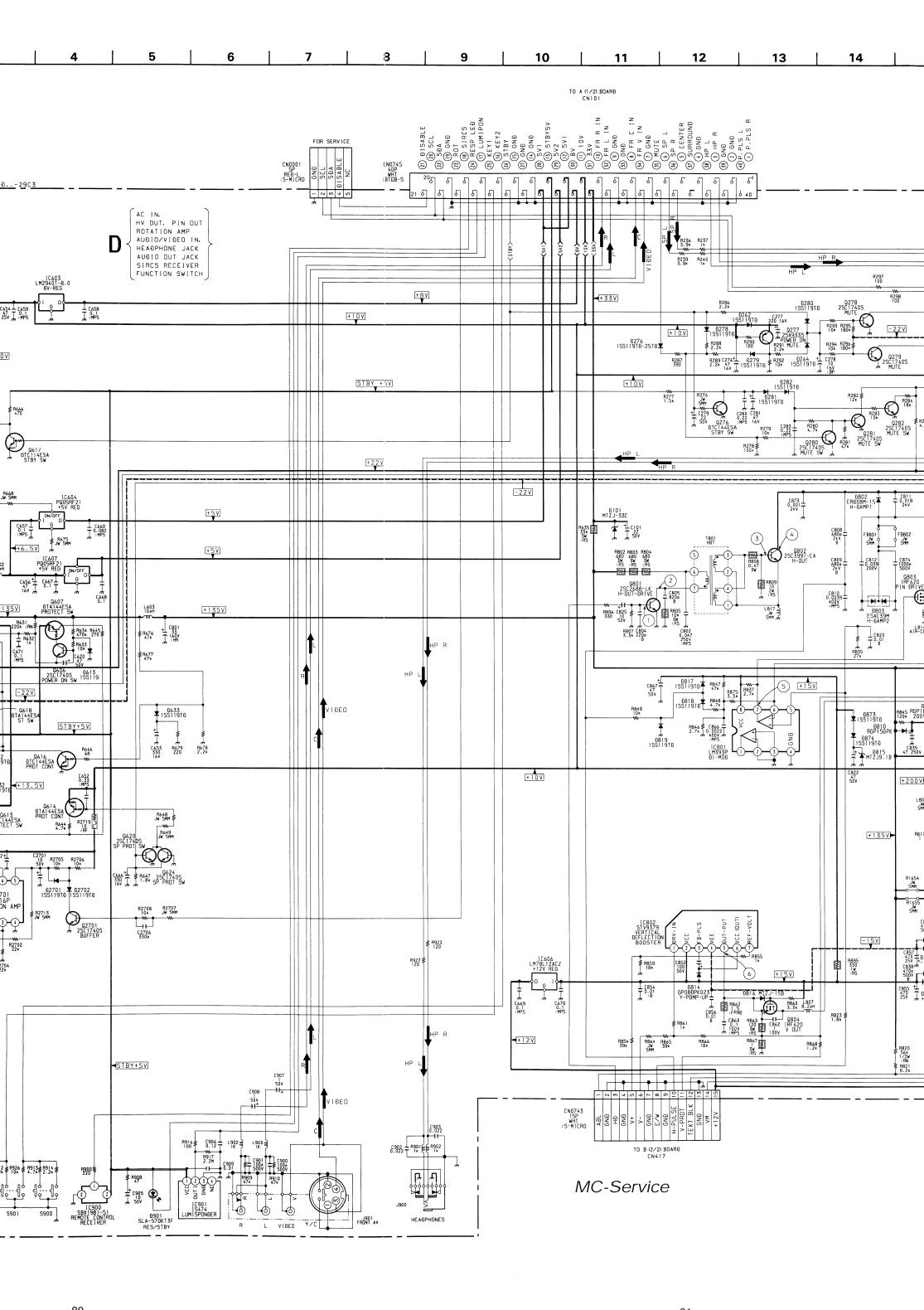


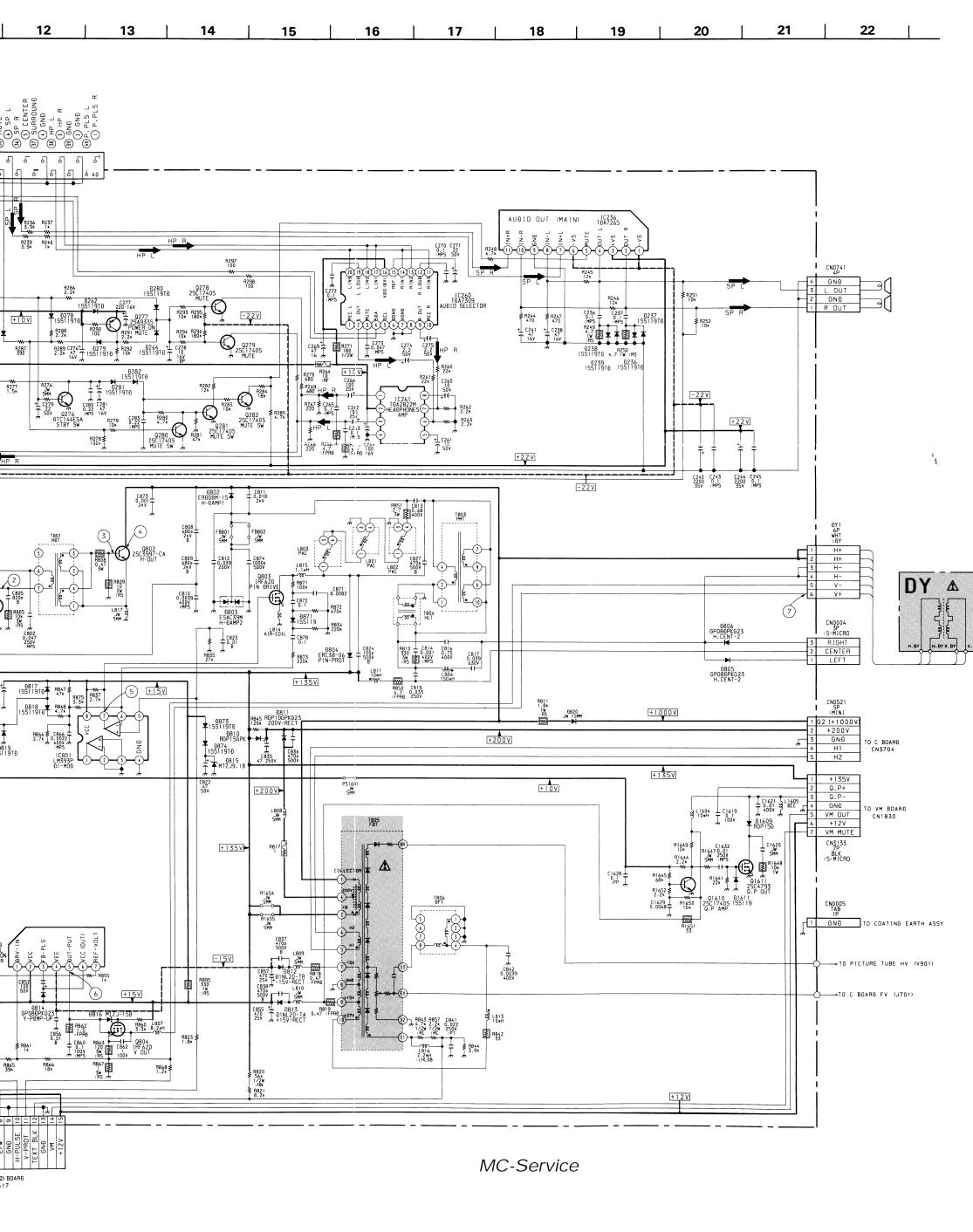


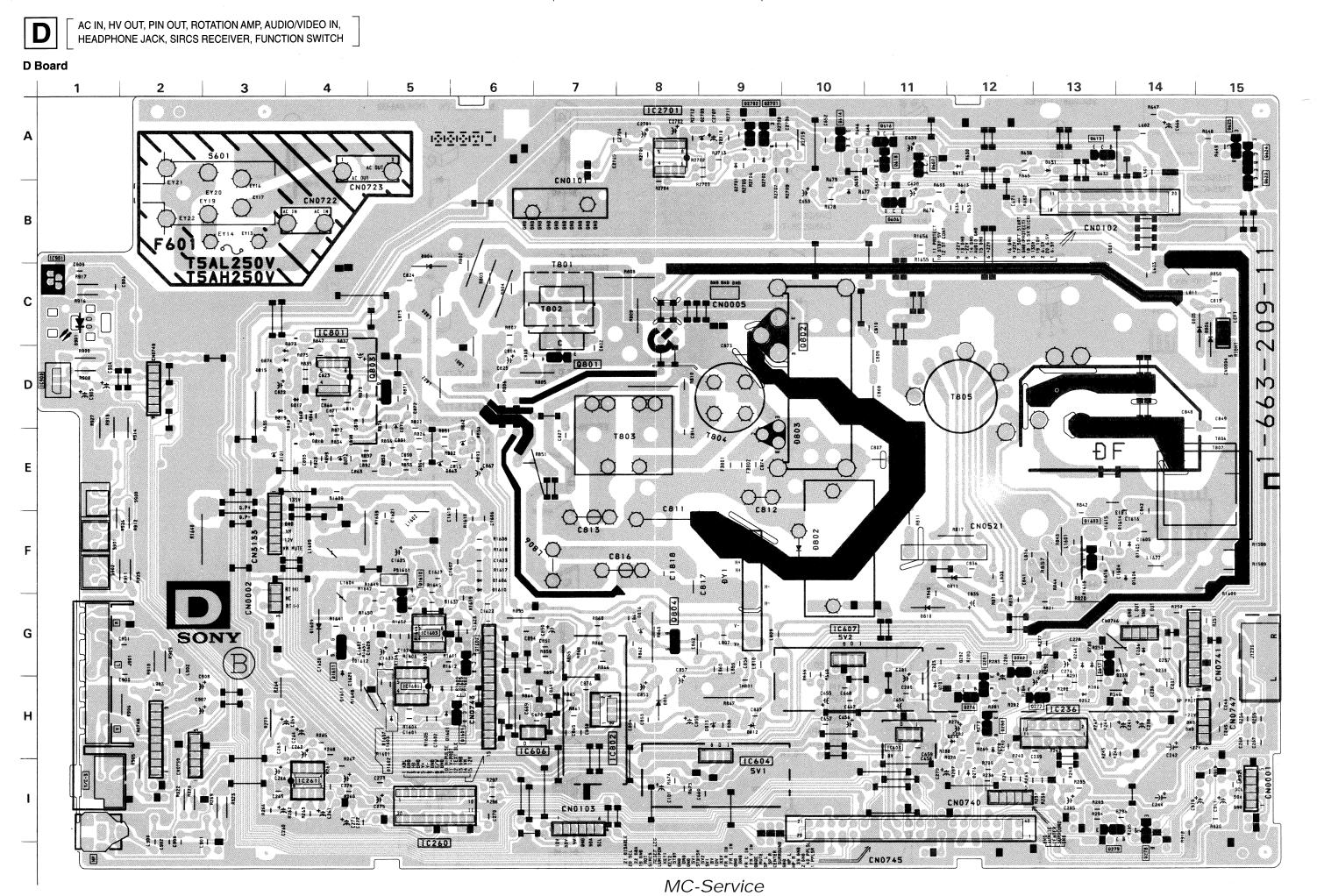
D BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table								
Ref No	B Base	C Collector	E Emitter					
Q276	0.7	4.0	-					
Q277	10.0	-	9.7					
Q278	-1.3	-	-					
Q279	-1.3	-	-1.3					
Q280	0.4	0.7	-					
Q281	0.7	-	-					
Q282	0.7	-	-					
Q801	-1.0	101.0	-					
Q802	-	136.0	-					
Q803	9.0	15.0	-					
Q804	11.3	0.1	-1.3					
Q606	0.5	4.8	0.3					
Q607	4.8	1.6	4.8					
Q613	13.5	-	-					
Q614	10.0	9.0	10.0					
Q616	0.7	-	-					
Q617	0.7	3.5	-					
Q618	3.5	-	-					
Q620	-	10.0	-					
Q624	-	10.0	-					
Q2701	-	2.3	-					
Q1610	-0.5	2.2	-					
Q1611	0.2	43.4	-					







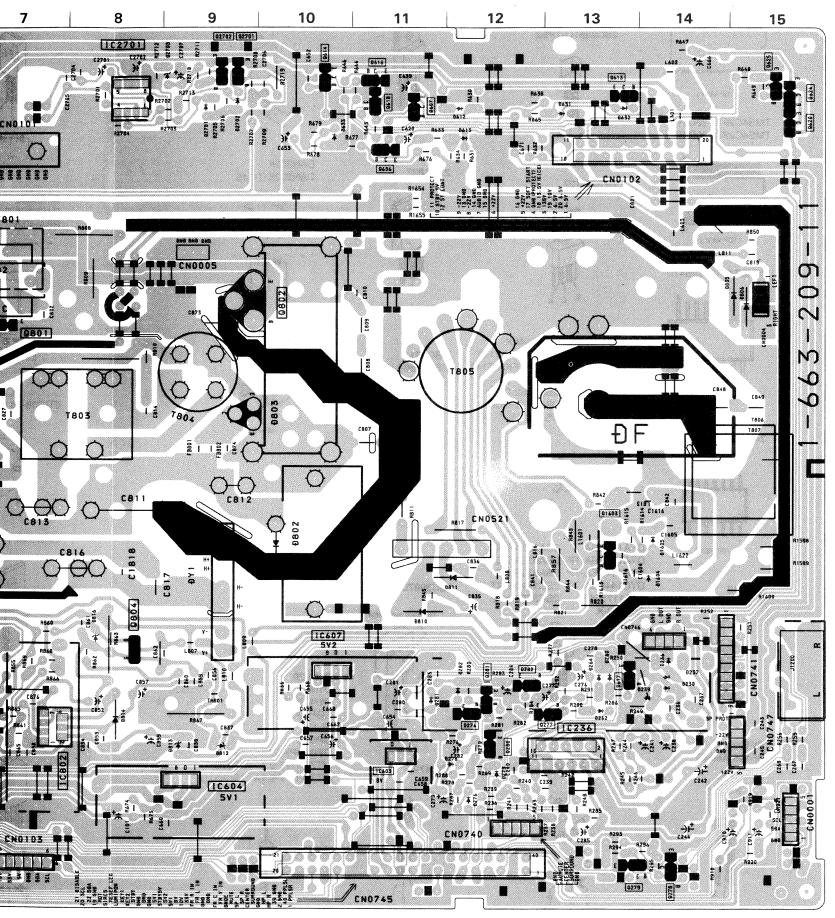


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D BOA

IC236 IC260 IC261 IC603 IC604 IC606 IC607 IC801 IC802 IC900 IC901 IC2701 TRAN Q276 Q277 Q278 Q279 Q280 Q281 Q282

Q606 Q607 Q613 Q614 Q616 Q617 Q618 Q620 Q624 Q801 Q802 Q803 Q804 Q1610 Q1611 Q2701





NOTE:

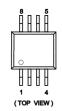
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

D BOARD

		1				
IC		DIODE				
IC236	H-13	D101	E-3			
IC260	I-5	D236	G-14			
IC261	I-4	D237	G-14			
IC603	H-11	D238	G-14			
IC604	H-9	D239	G-14			
IC606	H-7	D262	H-13			
IC607	G-10	D264	G-13			
IC801	C-4	D276	I-12			
IC802	H-8	D278	H-12			
IC900	D-1	D279	H-12			
IC901	C-1	D280	G-13			
IC2701	A-8	D281	H-12			
TRANS	STOR	D282	G-12			
Q276	H12	D612	A-12			
Q277	H-13	D613	B-12			
Q278	I-14	D631	A-13			
Q279	I-14	D632	A-14			
Q280	H-12	D633	B-11			
Q281	G-12	D802	F-10			
Q282	G-13	D803	E-10			
Q606	B-11	D804	B-5			
Q607	A-11	D805	C-15			
Q613	A-13	D806	C-15			
Q614	A-10	D810	G-11			
Q616	A-11	D811	F-12			
Q617	G-13	D812	H-9			
Q618	A-11	D813	H-9			
Q620	A-15	D814	H-8			
Q624	A-15	D815	D-3			
Q801	D-7	D816	G-8			
Q802	C-10	D817	D-4			
Q803	D-5	D818	E-4			
Q804	G-8	D819	D-3			
Q1610	F-5	D873	D-4			
Q1611	G-4	D874	D-3			
Q2701	A-9	D901	C-1			
		D1609	G-4			
		D1611	H-4			
		D2701	A-9			
		D2702	A-9			

5-4. SEMICONDUCTORS

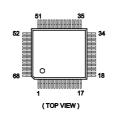
BA7046F BA7046F-T1 MB3793-42PNF MB3793-42PNF-ER



LM78L05ACZ LM78L12ACZ L78L05ACZ-AP L78L12ACZ-AP



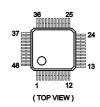
P83C654EBA/560 SDA9280A41



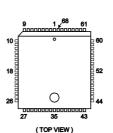
TC4S66F TC4S66F-TE85L



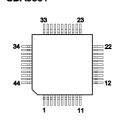
CXA1855Q-T6



MSP3400C-PS-C6-T-ND MSP3410B-PS-F7-T-ND SDA30C164-2-GEG SDA5273-C126-GEG



SAA4945H/V1 SDA9361



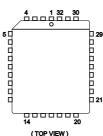
TDA4665T-T



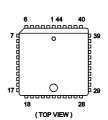
IS474



M27C4001-15C1-AE401



SAA4952WP/V1



TDA4780/V3



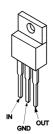
LM2940CT-9.0 LM2940T-8.0 LM2940T-9.0 L4941BV

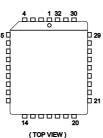
TEA7605

LM393P M5216P

ST24C16FB6 TDA2822M

UPC393C

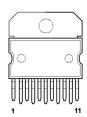




SBX1981-51



TDA7265



PC123F2 PC123FY2

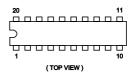


SDA9288X-A141 TDA8755T-T





TDA7309



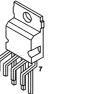
PQ05RF21



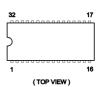
2 : V OUT 3 : GND 4 : ON/OFF CONTROL

— 86 —

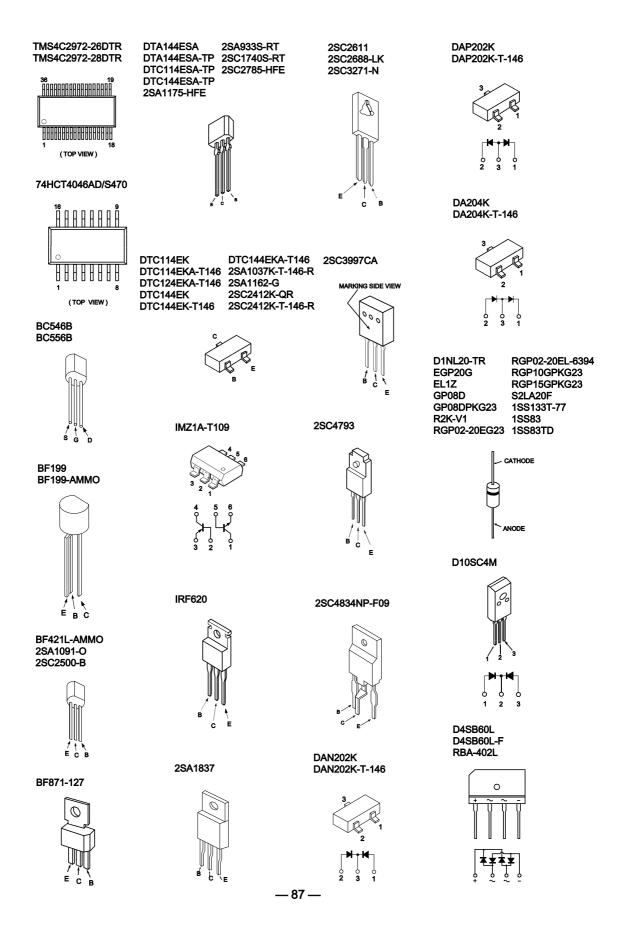
STV9379



TDA9143/N2



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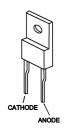
ERC38-06



MTZJ-T-77-15B RD15ES-B2 MTZJ-T-77-33C RD5.6ESB2 MTZJ-T-77-39C RD9.1ESB2 MTZJ-T-77-5.6B 1SS119-25 MTZJ-T-77-9.1B 1SS119-25TD MTZJ-39C

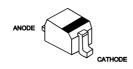
CATHODE

ERD08M-15

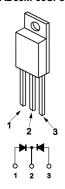




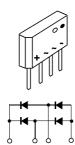
RD12SB2 UDZ-TE-17-12B



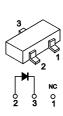
ESAD39M-06C ESAD39M-06CF38



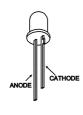




MA3030-H(TX) MA3056M-TX MA3033-L MA3062M-TX MA3033L-TX RD5.6M-B2



SLA-570KT3F

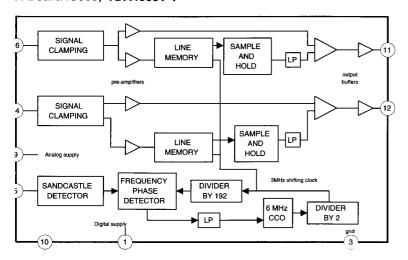


MA3051L-TX

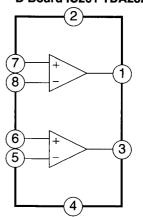


5-5. IC BLOCK DIAGRAMS

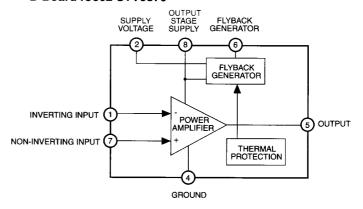
A Board IC303, TDA4665T-T



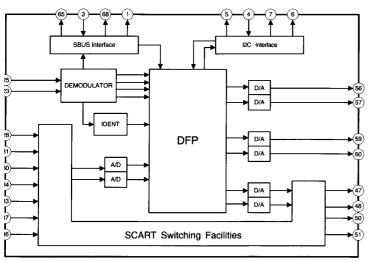
D Board IC261 TDA2822M



D Board IC802 STV9379



A Board IC201 MSP3400C-PS-C6-T/MSP3410B-PS-F7-T



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SECTION 6

EXPLODED VIEWS

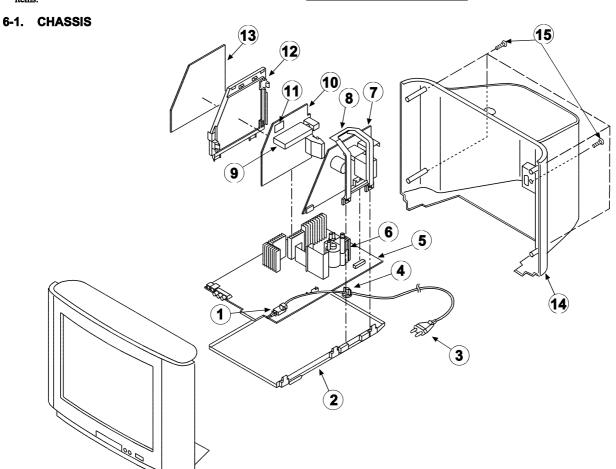
NOTE:

- Items with no part number and no description are not stocked because they
 are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked $\hat{\Lambda}$ are critical for safety.

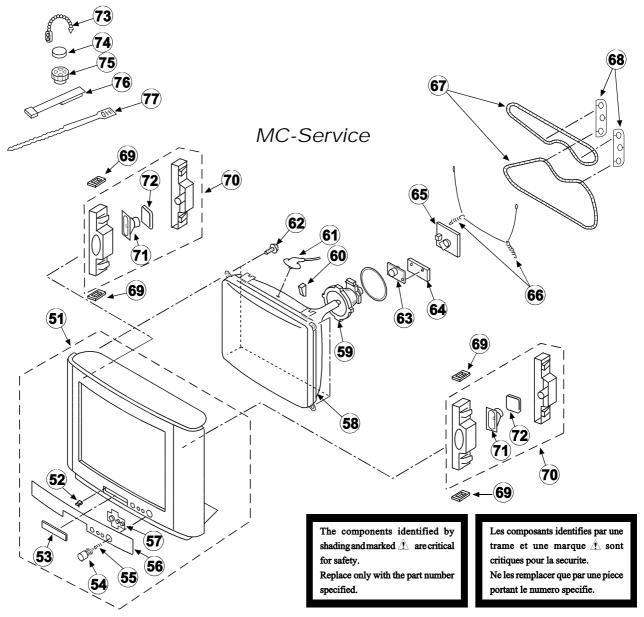
Replace only with the part number specified.

Les composants identifies par une trame et une marque $\hat{\Lambda}$ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1 2 3 4 5	*4-203-415-01 *1-751-680-11 *4-202-531-01 *1-1640-247-A *1-453-222-11	SWITCH, PUSH (AC PO BRACKET, MAIN CORD, POWER (WITH N 2.5A/250V AC CORD LOCK (SC) D BOARD, COMPLETE TRANSFORMER ASSY, F	OISE FILTER)	13 14 15	*A-1620-080-A 4-202-986-01 4-039-358-01	B BOARD, COMPLETE COVER, REAR SCREW (4X16), (+)	
7 8 9	*A-1636-021-A *4-203-613-01 1-693-338-11 1-693-340-11 *A-1632-588-A *A-1632-586-A	G BOARD, COMPLETE SUPPORTER, G TUMER (TUVIF) (AEP) (KV- TUMER (TUVIF) (FR) A BOARD, COMPLETE A BOARD, COMPLETE	25C3A/25C3D/25C3E) (KV-25C3B) (KV-25C3A)		MC-S	Service	
11 12	*A-1632-505-A *A-1632-587-A *A-1630-690-A *4-203-612-01	A BOARD, COMPLETE A BOARD, COMPLETE AN BOARD, COMPLETE BRACKET, A-B	KV-25C3D)				

6-2. PICTURE TUBE



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	X-4200-287-1	BEZNET ASSY (M)	52-57	64	*A-1644-077-A	VM BOARD, COMPLETE	
			V-25C3A/25C3D)	65	*A-1638-097-A	C BOARD, COMPLETE	
	X-4200-289-1	BEZNET ASSY (M-N)	52-57	66	4-369-318-51	SPRING, TENSION	
			V-25C3B/25C3E)	67	1-406-806-11	COIL DEGAUSSING	
52	4-392-036-01	CATCHER PUSH	,	68	4-202-745-01	HOLDER, D.G.C. (25")	
53	4-203-013-31	DOOR (PAINTED)		69	*4-202-988-01	CUSHION, BOX	
54	4-202-983-01	BUTTON, POWER		70	*A-1678-087-A	BOX ASSY	71-72
5 4 55	4-202-964-01	SPRING		71	1-504-146-11	SPEAKER (5X11CM)	
56	X-4200-288-1		V-25C3A/25C3D)	72	4-200-999-01	STOPPER	
••	X-4200-290-1		V-25C3B/25C3E)	73	4-308-870-00	CLIP, LEAD WIRE	
57	4-203-524-01	WINDOW ORNAMENTAL		74	1-452-032-00	MAGNET, DISK; 10MM Ø	
58 /	£ 8-733-243-05	PICTURE TUBE (SD-257)	(M60LCS60X)	75	1-452-094-00	MAGNET, ROTATABLE DISK;	1.5MM Ø
	8-451-474-11	DEFLECTION YOKE (Y25GX		76	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
60	3-704-495-01	SPACER, DY		77	3-701-007-00	BAND, BINDING	
60 61 /	1-251-317-31	CAP ASSY, HIGH-VOLTAGE		1	5 40 7 40		
62	4-203-043-01	SCREW (M), PT					
	R-453-005-11	NECK ASSV DICTIDE TIRE	(NA207_W)				

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

C1804

C1805

1-164-004-11 CERAMIC CHIP 0.1MF

1-164-489-11 CERAMIC CHIP 0.22MF

COILS

MF: mF, PF: mmF

MMH: mH, µH: mH

....

 Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

 All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

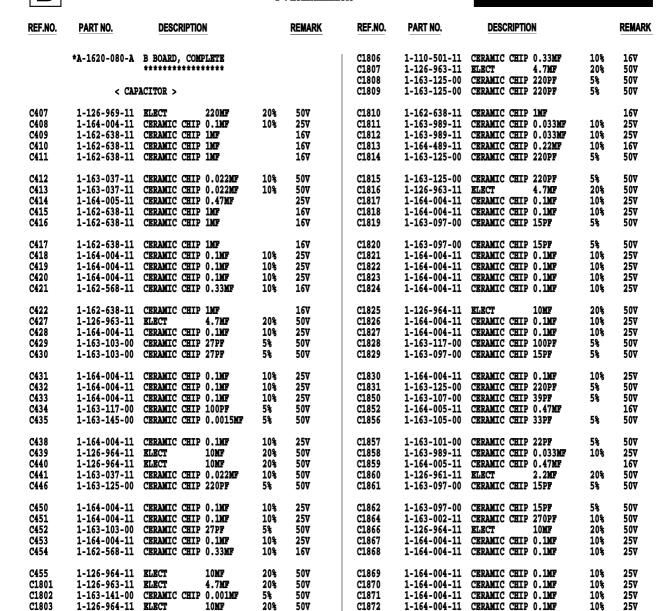
RESISTORS

- All resistors are in ohms
- F: nonflammable

The components identified by shading and marked $\hat{\mathcal{L}}$ are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque $ilde{L}$ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



1-164-004-11 CERAMIC CHIP 0.1MF

1-164-004-11 CERAMIC CHIP 0.1MF

10%

10%

25V

25V

C1873

C1874

10%

10%

25V

16V

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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	I	REMAR
C1875	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25 V	1	< IC	>		
C1879	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V					
C1880		CERAMIC CHIP 0.1MF	10%	25V	IC402	8-759-275-36	IC TDA4780/V3		
C1881		CERAMIC CHIP 0.1MF	10%	25V	IC403	8-759-421-42			
01001	1 101 001 11	CHICAGO CALL VILLE	-00	251	IC1801		IC TDA8755T-T		
C1882	1 164 004 11	CERAMIC CHIP 0.1MF	10%	25V	IC1802		IC SAA4945H/V	1	
C1883		CERAMIC CHIP 0.1MF	10%	25V	IC1803	8-/39-439-4/	IC TMS4C2972-2	SUTK	
C1886		CERAMIC CHIP 0.1MF	10%	25V					
C1887		CERAMIC CHIP 0.1MF	10%	25V	IC1809		IC SDA9280A41		
C1890	1-126-964-11	ELECT 10MF	20%	50V	IC1812		IC 74HCT4046Al		
					IC1814		IC SAA4952WP/		
C1891	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	IC1815		IC 74ECT4046AI		
C1898	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	IC1816	8-759-444-25	IC P83C654EBA	⁷ 560	
C1899	1-163-097-00	CERAMIC CHIP 15PF	5%	50V			•		
C1903	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	IC1823	8-759-991-41	IC LM78L05ACZ		
C1904		CERAMIC CHIP 0.0015MF	5%	50V	IC1824		IC LM78L05ACZ		
02701		011111111111111111111111111111111111111	-	•••	IC1825	8-759-234-77			
C1910	1-126-964-11	ELECT 10MF	20%	50 V	1010113	0 /55 252 //	TO TOTAL		
C1912	1 164 004 11	CERAMIC CHIP 0.1MF	10%	25V		< CO	PT .		
C1912	1-104-004-11	CERAMIC CHIP 0.1MF	10%	25V 25V		< 00.	т >		
					- 404	1 400 400 00		450	
C1931		CERAMIC CHIP 0.1MF	10%	25V	L401	1-408-429-00	INDUCTOR	470UH	
C1947	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L402	1-408-429-00	INDUCTOR	470UH	
					L407		INDUCTOR CHIP		
C1948	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L1801	1-410-435-21	INDUCTOR	220UH	
					L1802	1-410-435-21	INDUCTOR	220UH	
JR426	1-163-117-00	CERAMIC CHIP 100PF	5%	50V					
					L1803	1-408-403-00	INDUCTOR	3.3UH	
	< CON	INECTOR >			L1804	1-408-409-00		10UH	
	, ,,,,				L1805		INDUCTOR CHIP		
CN412	*1_564_512_11	PLUG, CONNECTOR 10P			L1808	1-408-403-00		3.3UH	
CN412	+1_E64_E11_11	PLUG, CONNECTOR 8P			L1814	1-408-403-00		3.3UH	
		PLUG, CONNECTOR 15P			птотя	T-400-403-00	INDUCTOR	3.30E	
CN417		PLUG, CONNECTOR 15P					WATARAR .		
CN419	*1-564-512-11	PLUG, CONNECTOR 9P				< TRA	ANSISTOR >		
CN1810	*1-564-512-11	PLUG, CONNECTOR 9P							
					Q415		TRANSISTOR DTO		
CN1815	*1-564-512-11	PLUG, CONNECTOR 9P			Q416		TRANSISTOR 2SO		
					Q1801	8-729-216-22	TRANSISTOR 252	1162-G	
	< DIC	DDE >			Q1802		TRANSISTOR DTO		
					Q1804	8-729-901-01	TRANSISTOR DTO	:144EK	
D401	8-719-914-43	DIODE DAN202K-T-146							
D402	8-719-914-43	DIODE DAN202K-T-146			Q1805	8-729-216-22	TRANSISTOR 2SA	1162-G	
D403		DIODE MA3033L-TX			Q1808		TRANSISTOR DTO		
D410		DIODE MA3062M-TX			Q1809		TRANSISTOR DTO		
D411		DIODE DAN202K-T-146			Q1810	8-729-901-01	TRANSISTOR DTO	1144RK	
	0 /10 /11 10	DIODE DIMETER I IIV			Q1812		TRANSISTOR 250		
D412	0_710_014_42	DIODE DAN202K-T-146			Ž1012	0-123-320-14	IMMUIDION 2D	TATEK-AV	
D412 D415		DIODE DAN202K-T-146				- DEC	SISTOR >		
DATO	0-/13-314-43	DIODE DWWS05K-1-140				C KD:	SIBIOK >		
	. 1101				G101C	1 016 042 01	VIII. 77.177	FC0 F0.	1 /1 AW
	< FE	RRITE BEAD >			C1916		METAL GLAZE	560 5%	1/10W
					C1921	1-216-176-11	METAL GLAZE	120 5%	1/8W
FB401		INDUCTOR, FERRITE BEAD							a ta a=-
FB402		INDUCTOR, FERRITE BEAD			L1811	1-216-295-91	METAL GLAZE	0 5%	1/10W
FB403		INDUCTOR, FERRITE BEAD							
FB405		INDUCTOR, FERRITE BEAD			JR401		METAL GLAZE	0 5%	1/10W
FB406	1-414-234-11	INDUCTOR, FERRITE BEAD			JR402	1-216-295-91	METAL GLAZE	0 5%	1/10W
	_	-,			JR403		METAL GLAZE	0 5%	1/10W
FB407	1-414-234-11	INDUCTOR, FERRITE BEAD			JR404		METAL GLAZE	0 5%	1/10W
FB1801		INDUCTOR, FERRITE BEAD			JR405		METAL GLAZE	0 5%	1/10W
FB1802		INDUCTOR, FERRITE BEAD			UNIUS	1-110-113-71	MUIAU CHANN	0 50	1/ 1011
FB1803		INDUCTOR, FERRITE BEAD			JR406	1-216-205-01	METAL GLAZE	0 5%	1/10W
							METAL GLAZE		
FB1804	1-313-724-11	INDUCTOR, FERRITE BEAD			JR407				1/10W
WD4 ^^=	4 444 664 44	TVD7/JEAN			JR408		METAL GLAZE	0 5%	1/10W
FB1805		INDUCTOR, FERRITE BEAD			JR409	1-216-295-91		0 5%	1/10W
FB1806	1-414-234-11	INDUCTOR, FERRITE BEAD			JR414	1-216-295-91	METAL GLAZE	0 5%	1/10W
								_	
	< ENC	CAPSULATED FILTER >			JR415		METAL GLAZE	0 5%	1/10W
					JR417		METAL GLAZE	0 5%	1/10W
FL1801	1-233-767-11	FILTER			JR418	1-216-295-91	METAL GLAZE	0 5%	1/10W
FL1803	1-415-940-11				JR420		METAL GLAZE	0 5%	1/10W
FL1807		ENCAPSULATED COMPONENT			JR421		METAL GLAZE	0 5%	1/10W
FL1808		ENCAPSULATED COMPONENT				 /-			_,
FL1809		ENCAPSULATED COMPONENT			JR422	1-216-295-91	METAL GLAZE	0 5%	1/10W
	T =00-01T-TT				VATAB	T MIN-879-31	Vunuu	- 50	2/ 2011



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REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK	REF.NO.	PART NO.	DESCRIPTIO	N		REMARK	<u> </u>
JR423	1-216-295-91	METAL GLAZE	0	5%	1/10W	R447	1-216-025-91	METAL GLAZE	100	5%	1/10W	
JR424	1-216-295-91		0	5%	1/10W	R448	1-216-043-91		560	5%	1/10W	
JR1814	1-216-295-91		0	5%	1/10W	R449	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
JR1815	1-216-295-91	METAL GLAZE	0	5%	1/10W	R450	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
JR1816	1-216-295-91	METAL GLAZE	0	5%	1/10W	R451	1-216-101-00		150K	5%	1/10W	
JR1817	1-216-295-91		0	5%	1/10W	R452	1-216-073-00		10K	5%	1/10W	
JR1818	1-216-295-91		0	5%	1/10W	R453	1-216-017-91		47	5%	1/10W	
JR1819 JR1820	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	R454	1-216-017-91	METAL GLAZE	47	5%	1/10W	
UNIUZU	1-210-233-31	MBIRD GURDS	٠	3.0	1/1011	R455	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
JR1821	1-216-295-91		0	5%	1/10W	R456	1-216-097-91	METAL GLAZE	100K	5%	1/10W	
JR1822	1-216-295-91		0	5%	1/10W	R457	1-216-099-00		120K	5%	1/10W	
JR1823 JR1824	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	R458 R459	1-216-049-91 1-216-049-91		1K 1K	5% 5%	1/10W 1/10W	
JR1825	1-216-295-91		ŏ	5%	1/10W	ATJJ	1-210-049-91	MEINU GUNDE	TK	20	1/10#	
						R463	1-216-049-91		1K	5%	1/10W	
JR1826	1-216-295-91		0	5%	1/10W	R465	1-216-073-00		10K	5%	1/10W	
JR1827 JR1828	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	R466 R467	1-216-049-91 1-216-041-00		1K 470	5% 5%	1/10W 1/10W	
JR1829	1-216-295-91		ŏ	5%	1/10W	R468	1-216-025-91		100	5%	1/10W	
JR1830	1-216-295-91	METAL GLAZE	0	5%	1/10W							
TD1001	1 016 005 01			F0.	1 /1 Aw	R469	1-216-025-91		100	5%	1/10W	
JR1831 JR1832	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	R470 R483	1-216-055-00 1-216-063-91		1.8K 3.9K	5% 5%	1/10W 1/10W	
JR1833	1-216-295-91		ŏ	5%	1/10W	R484	1-216-049-91		1K	5%	1/10W	
JR1834	1-216-295-91		0	5%	1/10W	R490	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR1835	1-216-295-91	METAL GLAZE	0	5%	1/10W	D1001	1 016 051 00	VPP11 AT 1 FF	1 00	F0.	1 /1 000	
JR1836	1-216-295-91	MRTAL GLAZE	0	5%	1/10W	R1801 R1802	1-216-051-00 1-216-049-91		1.2K 1K	5% 5%	1/10W 1/10W	
JR1837	1-216-295-91		ŏ	5%	1/10W	R1803	1-216-296-91		0	5%	1/8W	
JR1838	1-216-295-91	METAL GLAZE	Ō	5%	1/10W	R1804	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
JR1839	1-216-295-91		0	5%	1/10W	R1805	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
JR1840	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1806	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
JR1843	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1807	1-216-049-91		1K	5%	1/10W	
JR1845	1-216-295-91		0	5%	1/10W	R1808	1-216-025-91		100	5%	1/10W	
JR1846	1-216-295-91		0	5%	1/10W	R1809	1-216-033-00		220	5%	1/10W	
JR1866 JR1868	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	R1810	1-216-076-00	METAL GLAZE	13K	5%	1/10W	
OMEGOO	1-210-255-51	MITAL CIMIL	•	50	1/1011	R1811	1-216-025-91	METAL GLAZE	100	5%	1/10W	
JR1869	1-216-295-91		0	5%	1/10W	R1812	1-216-033-00		220	5%	1/10W	
JR1870 JR1871	1-216-295-91 1-216-295-91		0	5%	1/10W 1/10W	R1813 R1814	1-216-045-00 1-216-031-00	METAL GLAZE METAL GLAZE	680 180	5%	1/10W	
JR1872	1-216-295-91		Ö	5% 5%	1/10W 1/10W	R1815	1-216-031-00		330	5% 5%	1/10W 1/10W	
JR1873	1-216-295-91		Ŏ	5%	1/10W						_,	
					4 /4 000	R1816	1-216-295-91		0	5%	1/10W	
JR1874 JR1875	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	R1817 R1818	1-216-037-00 1-216-037-00		330 330	5% 5%	1/10W 1/10W	
JR1890	1-216-295-91		ŏ	5%	1/10W	R1819	1-216-037-00		10K	5%	1/10W	
JR1891	1-216-295-91	METAL GLAZE	Ö	5%	1/10W	R1820	1-216-029-00		150	5%	1/10W	
JR1893	1-216-295-91	METAL GLAZE	0	5%	1/10W	21001	1 016 000 00	VPR11 41155	00		4 /4 000	
JR1894	1-216-295-91	METAT. GI.AZF	0	5%	1/10W	R1821 R1822	1-216-023-00 1-216-296-91		82 0	5% 5%	1/10W 1/8W	
JR1896	1-216-295-91		ŏ	5%	1/10W	R1831	1-216-081-00		22K	5%	1/10W	
JR1897	1-216-295-91		0	5%	1/10W	R1832	1-216-065-00	METAL GLAZE	4.7K		1/10W	
JR1898	1-216-295-91		0	5%	1/10W	R1833	1-216-041-00	METAL GLAZE	470	5%	1/10W	
JR1899	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1834	1-216-115-00	METAL CLASE	560K	5%	1/10W	
JR1901	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1835	1-216-037-00		330	5%	1/10W	
JR1905	1-216-295-91		0	5%	1/10W	R1844	1-216-081-00		22K	5%	1/10W	
JR1910	1-216-295-91		0	5%	1/10W	R1845	1-216-065-00		4.7K		1/10W	
JR1911	1-216-295-91	metal Glaze	0	5%	1/10W	R1846	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R408	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1847	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R409	1-216-057-00			5%	1/10W	R1848	1-216-025-91		100	5%	1/10W	
R439 R443	1-216-093-00 1-216-025-91		68K 100	5% 5%	1/10W 1/10W	R1849 R1850	1-216-001-00 1-216-057-00		10 2.2K	5% E&	1/10W 1/10W	
R444	1-216-025-91		100	5% 5%	1/10W 1/10W	R1851	1-216-057-00		2.2K		1/10W 1/10W	
R445	1-216-025-91		100	5%	1/10W	R1852	1-216-057-00		2.2K		1/10W	
R446	1-216-025-91	METAL GLAZE	100	5%	1/10W	R1853	1-216-057-00	METAL GLAZE	2.2K	5*	1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	ON		REMARK
R1854 R1855	1-216-057-00 1-216-057-00	METAL GLAZE 2.2K 5% METAL GLAZE 2.2K 5%	1/10W 1/10W	C105	1-126-965-11	ELECT	22MF	20%	50 V
R1856	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	C111 C112	1-126-964-11 1-164-346-11	ELECT CERAMIC CHIP	10MF 1MF	20%	50V 16V
R1857 R1858	1-216-057-00 1-216-057-00	METAL GLAZE 2.2K 5% METAL GLAZE 2.2K 5%	1/10W 1/10W	C114 C116	1-164-346-11 1-126-967-11	CERAMIC CHIP		20%	16V 16V
R1859 R1861	1-216-017-91 1-216-295-91	METAL GLAZE 47 5% METAL GLAZE 0 5%	1/10W 1/10W	C117	1-163-017-00	CERAMIC CHIP		10%	50V
R1864	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W	C118 C119	1-126-967-11 1-163-017-00	ELECT CERAMIC CHIP	47MF 0.0047MF	20% 10%	16V 50V
R1866 R1867	1-216-089-91 1-216-075-00	METAL GLAZE 47K 5% METAL GLAZE 12K 5%	1/10W 1/10W	C120 C121	1-126-964-11 1-164-299-11	ELECT CERAMIC CHIP	10MF	20% 10%	50V 25V
R1868	1-216-089-91	METAL GLAZE 47K 5%	1/10W	C122	1-164-346-11	CERAMIC CHIP		104	16V
R1869 R1871	1-216-049-91 1-216-055-00	METAL GLAZE 1K 5% METAL GLAZE 1.8K 5%	1/10W 1/10W	C126	1-126-967-11	ELECT	47MF	20%	16V
			,	C127	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
R1879	1-216-049-91	METAL GLAZE 1K 5%	1/10W	C128	1-126-967-11	ELECT	47MF	20%	16V
R1880 R1881	1-216-085-00 1-216-065-00	METAL GLAZE 33K 5% METAL GLAZE 4.7K 5%	1/10W 1/10W	C129 C130	1-163-017-00 1-163-133-00	CERAMIC CHIP		10% 5%	50V 50V
R1882	1-216-085-00	METAL GLAZE 33K 5%	1/10W	CISO	1-103-133-00	CHIMMIC CHII	7/022	3.0	
R1885	1-216-049-91	METAL GLAZE 1K 5%	1/10W	C131	1-164-346-11	CERAMIC CHIP		F0.	16V
R1886	1-216-295-91	METAL GLAZE 0 5%	1/10W	C132 C133	1-163-133-00 1-164-346-11	CERAMIC CHIP		5%	50V 16V
R1888	1-216-021-00	METAL GLAZE 68 5%	1/10W	C134	1-126-964-11	ELECT	10MF	20%	50V
R1890	1-216-295-91	METAL GLAZE 0 5%	1/10W	C135	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
R1891 R1894	1-216-295-91 1-216-047-91	METAL GLAZE 0 5% METAL GLAZE 820 5%	1/10W 1/10W	C136	1-126-964-11	ELECT	10MF	20%	50V
			,	C137	1-164-506-11	CERAMIC CHIP			16V
R1895	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	C138	1-126-964-11	ELECT	10MF	20%	50V
R1896 R1897	1-216-059-00 1-216-065-00	METAL GLAZE 2.7K 5% METAL GLAZE 4.7K 5%	1/10W 1/10W	C139 C140	1-164-346-11 1-164-506-11	CERAMIC CHIP			16V 16V
R1901	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W						
R1902	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	C141	1-164-506-11	CERAMIC CHIP		FQ.	16V
R1903	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	C143 C144	1-163-113-00 1-163-237-11	CERAMIC CHIP CERAMIC CHIP		5% 5%	50V 50V
R1904	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	C145	1-163-113-00	CERAMIC CHIP		5%	50V
R1905	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W						(KV-25C3B)
R1906 R1907	1-216-059-00 1-216-059-00	METAL GLAZE 2.7K 5% METAL GLAZE 2.7K 5%	1/10W 1/10W	C146	1-164-346-11	CERAMIC CHIP	1MF		16V
				C150	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
R1908	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	C151	1-164-004-11	CERAMIC CHIP		10%	25V
R1909 R1910	1-216-059-00 1-216-059-00	METAL GLAZE 2.7K 5% METAL GLAZE 2.7K 5%	1/10W 1/10W	C152 C153	1-126-964-11 1-110-501-11	ELECT CERAMIC CHIP	10MF 0.33MF	20% 10%	50V 16V
R1911	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W						
R1912	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	C154 C155	1-110-501-11 1-164-004-11	CERAMIC CHIP		10% 10%	16V 25V
R1920	1-216-295-91	METAL GLAZE 0 5%	1/10W	C156	1-164-506-11	CERAMIC CHIP		100	16V
R1921	1-216-295-91	METAL GLAZE 0 5%	1/10W	C157		CERAMIC CHIP			16V
R1922	1-216-025-91	METAL GLAZE 100 5%	1/10W	C159	1-164-505-11	CERAMIC CHIP	2.2MF		16V
	< CRY	STAL >		C160		CERAMIC CHIP		5%	50V
X401	1-767-343-21	VIBRATOR, CRYSTAL (24.5	76MHz)	C162 C163		CERAMIC CHIP		10%	16V 50V
X1801		VIBRATOR, CERAMIC (10ME		C164	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
******	***********	***************	******	C165	1-164-346-11	CERAMIC CHIP	1MF		16V
				C166		CERAMIC CHIP		5%	50V
	*A-1632-588-A	A BOARD, COMPLETE (KV-2	5C3A)	C167		CERAMIC CHIP		EQ.	25V
	*A-1632-586-A	A BOARD, COMPLETE (KV-2	5C3B)	C200 C201		CERAMIC CHIP		5% 5%	50V 50V
		A BOARD, COMPLETE (KV-2		C202		CERAMIC CHIP		*	16V
		************		C203		CERAMIC CHIP		10%	25V
	*A-1632-587-A	A BOARD, COMPLETE (KV-2	5C3E)	C204	1-162-568-11	CERAMIC CHIP	0.33MF	10%	16V
		******		C205 C206		CERAMIC CHIP CERAMIC CHIP		10%	16V 25V
	< CAE	PACITOR >		C207		CERAMIC CHIP		10%	16V
C101	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C208	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C102	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C209	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C103	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C210 C211		CERAMIC CHIP CERAMIC CHIP		10%	16V
			(KV-25C3B)	C211	1-103-132-00	CREATE CHIP	ZIUPE	5%	50V

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REF.NO.	PART NO.	DESCRIPTION	ı	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
C212	1-163-133-00	CERAMIC CHIP 470PF	5%	50 V	C1036	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C213 C214 C215 C216 C217	1-164-004-11 1-164-506-11 1-164-506-11 1-164-004-11 1-126-964-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 0.1MF ELECT 10MF	10% 10% 20%	25V 16V 16V 25V 50V	C1039 C1040 C1041 C1042 C1043	1-164-004-11 1-164-222-11 1-164-222-11 1-164-222-11 1-163-251-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.22MF CERAMIC CHIP 0.22MF CERAMIC CHIP 0.22MF CERAMIC CHIP 100PF	10% 5%	25V 25V 25V 25V 50V
C218 C219 C220 C221 C222	1-126-964-11 1-163-131-00 1-163-131-00 1-163-275-11 1-163-275-11	CERAMIC CHIP 390PF CERAMIC CHIP 390PF CERAMIC CHIP 390PF CERAMIC CHIP 0.001MF CERAMIC CHIP 0.001MF	20% 5% 5% 5% 5%	50V 50V 50V 50V 50V	C1060 C1301 C1401 C1402 C1403	1-163-001-11 1-164-004-11 1-164-004-11 1-163-231-11 1-163-231-11	CERAMIC CHIP 220PF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 15PF CERAMIC CHIP 15PF	10% 10% 10% 5% 5%	50V 25V 25V 50V 50V
C223 C224 C227 C228 C229	1-163-275-11 1-163-275-11 1-164-337-11 1-164-337-11 1-164-004-11	CERAMIC CHIP 0.001MF CERAMIC CHIP 0.001MF CERAMIC CHIP 2.2MF CERAMIC CHIP 2.2MF CERAMIC CHIP 0.1MF	5% 5% 10%	50V 50V 16V 16V 25V	C1404 C1405 C1406 C1407 C1408	1-164-182-11 1-164-004-11 1-164-004-11 1-164-004-11 1-164-182-11	CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.0033MF	10% 10% 10% 10% 10%	50V 25V 25V 25V 50V
C230 C231 C232 C233 C234	1-164-506-11 1-163-087-00 1-163-087-00 1-163-243-11 1-163-243-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4PF CERAMIC CHIP 4PF CERAMIC CHIP 47PF CERAMIC CHIP 47PF	0.25PF 0.25PF 5% 5%		C1409 C1413 C1414 C1417 C1418	1-165-320-11 1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.47MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	16V 25V 25V 25V 25V
C303 C304 C305 C306 C307	1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	25V 25V 25V 25V 25V	C1420 C1421 C1430 C1431 C1432	1-164-506-11 1-164-506-11 1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 10% 10%	16V 16V 25V 25V 25V
C308 C309 C310 C311 C312	1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	25V 25V 25V 25V 25V	C1433 C1434 C1435 C1437 C1438	1-164-004-11 1-164-004-11 1-164-004-11 1-163-235-11 1-163-235-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 22PF CERAMIC CHIP 22PF	10% 10% 10% 5% 5%	25V 25V 25V 50V 50V
C313 C314 C315 C316 C317	1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	25V 25V 25V 25V 25V	C1439 C1441 C1442 C1443 C1444	1-163-087-00 1-164-506-11 1-164-506-11 1-164-506-11 1-164-506-11	CERAMIC CHIP 4PF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	0.25PI	7 50V 16V 16V 16V 16V
C318 C319 C320 C321 C322	1-164-182-11 1-164-182-11 1-165-320-11 1-164-506-11 1-164-506-11	CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.47MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	10% 10% 10%	50V 50V 16V 16V 16V	C1445 C1446 C1447 C1448 C1450		CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 0.47MF CERAMIC CHIP 0.47MF CERAMIC CHIP 15PF	10% 10% 5%	16V 16V 16V 16V 50V
C323 C324 C325 C350 C351	1-164-004-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	10% 10%	16V 25V 25V 16V 16V	C1451 C1452 C1460 C1461 C1462	1-164-232-11		5% 10% 5% 5% 5%	50V 50V 50V 50V 50V
C355 C356 C357 C1001 C1002		CERAMIC CHIP 15PF CERAMIC CHIP 15PF CERAMIC CHIP 39PF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	5% 5% 5%	50V 50V 50V 16V 16V	C2001 C2002 C2004 C2005 C2007	1-164-506-11 1-164-506-11 1-164-506-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 0.1MF		16V 16V 16V 16V 25V
C1003 C1004 C1005 C1006 C1007	1-164-506-11 1-164-506-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 0.68MF CERAMIC CHIP 0.068MF	10% 10%	16V 16V 16V 16V 25V	C2020 C2021 C2023 C2024 C2025	1-164-222-11 1-163-038-91	CERAMIC CHIP 0.22MF CERAMIC CHIP 0.22MF CERAMIC CHIP 0.1MF CERAMIC CHIP 100PF CERAMIC CHIP 22PF	5% 5%	25V 25V 25V 50V 50V
C1020 C1021 C1022 C1035	1-163-251-11 1-163-251-11	CERAMIC CHIP 100PF CERAMIC CHIP 100PF CERAMIC CHIP 100PF CERAMIC CHIP 100PF	5% 5% 5% 5%	50V 50V 50V 50V	C2026 C2028 C2029 C2030	1-163-031-11 1-164-222-11	CERAMIC CHIP 22PF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.22MF CERAMIC CHIP 100PF	5% 5%	50V 50V 25V 50V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C2031 C2033	1-164-222-11 1-163-251-11	CERAMIC CHIP 0.22MF CERAMIC CHIP 100PF 5%	25V 50V		< ENC	CAPSULATED FILTER >	
		LTER >		FL102 FL103		ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
CD1001	1-527-992-31	OSCILLATOR, CERAMIC (6MHz)		FL200 FL201	1-233-764-21		
CF200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)		FL202		ENCAPSULATED COMPONENT	
	< ADA	APTOR >		FL203 FL302	1-236-071-11	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
CP101	1-473-953-11	ADAPTOR, IEC		FL1001 FL1002 FL1402	1-236-071-11	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
	< COM	INECTOR >				ENCAPSULATED COMPONENT	
CN101 CN115 CN117 CN201	1-695-301-11 *1-564-524-11 *1-564-520-11 1-766-296-11	CONNECTOR, BOARD TO BOARD 40F PLUG, CONNECTOR 9P PLUG, CONNECTOR 5P CONNECTOR, DUAL SCART PLUG, CONNECTOR 8P PLUG, CONNECTOR 10F	•	FL1404 FL1405 FL2001 FL2003	1-236-071-11 1-236-071-11 1-236-071-11	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
CN1413	1-304-323-11	PLUG, CONNECTOR OF			< IC	>	
CN2012	*1-504-525-11	PLUG, CONNECTOR 10P		IC101	8-752-068-45	IC CXA1855Q-T6	
	< DIC	JUK >		IC102 IC104	8-759-514-57		
D102 D103 D104	8-719-158-49	DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2		IC201		IC MSP3400C-PS-C6-T-ND IC MSP3410B-PS-F7-T-ND	
D105 D199	8-719-158-49	DIODE RD12SB2 DIODE DAN202K		IC302 IC303		IC TDA9143/N2 IC TDA4665T-T	
D200	8-719-158-49	DIODE RD12SB2		IC1001 IC1002		IC SDA30C164-2-GEG IC M27C4001-15C1	
D201 D202	8-719-158-49	DIODE RD12SB2 DIODE RD12SB2				SOCKET, PLCC ; IC1002	
D203 D204	8-719-158-49	DIODE RD12SB2 DIODE RD12SB2		IC1003 IC1004		IC ST24C16FB6 IC MB3793-42PNF	
D205	8-719-158-49	DIODE RD12SB2		IC1401 IC1403		IC TDA9143/N2 IC SDA9288X-A141	
D206 D207		DIODE RD12SB2 DIODE RD12SB2		IC2001	8-759-438-65	IC SDA5273-C126-GEG	
D208 D209		DIODE RD12SB2 DIODE RD12SB2			< CO1	IL >	
D210		DIODE RD12SB2		L101 L321	1-412-751-11 1-412-006-31	INDUCTOR CHIP 10UH	•
D211 D212	8-719-158-49	DIODE RD12SB2 DIODE RD12SB2		L1401	1-410-428-11		C3A/25C3B/25C3E)
D213 D214		DIODE RD12SB2 DIODE RD12SB2			< TRA	ANSISTOR >	
D215		DIODE RD12SB2		Q102	8-729-920-74	TRANSISTOR 2SC2412K-QR	gan)
D217 D218	8-719-158-49	DIODE RD12SB2 DIODE RD12SB2		0103 0104	8-729-920-74	TRANSISTOR BSS83 (KV-25 TRANSISTOR 2SC2412K-QR	(KV-25C3B)
D219 D220		DIODE RD12SB2 DIODE RD12SB2		Q106 Q107		TRANSISTOR 2SA1162-G (F TRANSISTOR 2SA1162-G	V-25C3B)
D221 D223		DIODE RD12SB2 DIODE RD12SB2		Q108 Q109		TRANSISTOR 2SC2412K-QR TRANSISTOR 2SA1162-G	
D301	8-719-401-41	DIODE MA3051L-TX		Q110	8-729-038-96	TRANSISTOR IMZ1A-T109	
D1007 D1008		DIODE DAP202K DIODE DAN202K		Q112 Q120		TRANSISTOR 2SA1162-G TRANSISTOR DTC124EKA-T1	46
D1009		DIODE RD5.6M-B2		Q200		TRANSISTOR 2SC2412K-QR	
D1010 D1405		DIODE RD5.6M-B2 DIODE DA204K		Q205 Q301 Q302	8-729-920-74	TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR	
	< FEF	RRITE BEAD >		Q302 Q315		TRANSISTOR ZSCZ41ZK-QR TRANSISTOR IMZ1A-T109	
FB101 FB102		INDUCTOR, FERRITE BEAD INDUCTOR, FERRITE BEAD		Q316 Q317		TRANSISTOR IMZ1A-T109 TRANSISTOR IMZ1A-T109	
				Q318 Q1001	8-729-920-74	TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR	
				Q1301		TRANSISTOR 2SA1162-G	

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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK
Q1305 Q1311	8-729-216-22 8-729-920-74	TRANSISTOR 2SA116 TRANSISTOR 2SC241			R129	1-208-774-11	METAL CHIP	470	0.50%	1/10W (KV-25C3B)
Q1312 Q1401 Q1402	8-729-920-74 8-729-038-96 8-729-038-96	TRANSISTOR 2SC241 TRANSISTOR IMZ1A- TRANSISTOR IMZ1A-	T109		R130 R131	1-216-039-00 1-216-039-00	METAL GLAZE METAL GLAZE	390 390	5% 5%	1/10W 1/10W
Q1402 Q1403	8-729-038-96	TRANSISTOR IMZ1A-			R132 R133	1-216-089-91 1-216-065-00	METAL GLAZE METAL GLAZE	47K 4.7K	5% 5%	1/10W 1/10W
Q1404 Q1404	8-729-920-74				R134	1-216-089-91	METAL GLAZE	47K	5%	1/10W
Q1411		TRANSISTOR 2SC241			R135	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q1412 Q2005	8-729-920-74 8-729-920-74	TRANSISTOR 2SC241 TRANSISTOR 2SC241			R136	1-216-022-00	METAL GLAZE	75	5% ==	1/10W
Q2006	8-729-027-59	TRANSISTOR DTC144	RKA-T14	6	R137 R138	1-216-033-00 1-216-022-00	METAL GLAZE METAL GLAZE	220 75	5% 5%	1/10W 1/10W
Q2007	8-729-027-59	TRANSISTOR DTC144			R139	1-216-033-00	METAL GLAZE	220	5%	1/10W
	, DPC	SISTOR >			R141 R142	1-216-033-00 1-216-033-00	METAL GLAZE METAL GLAZE	220 220	5% 5%	1/10W 1/10W
	CAN >	IBIOK >				1-210-033-00	MEIRI GIRZE	220	20	•
D2001	1-216-049-91	METAL GLAZE 1K	5%	1/10W	R143	1-216-025-91		100	5%	1/10W
JR201	1-216-295-91	METAL GLAZE 0	5%	1/10W	R144 R146	1-216-025-91 1-216-033-00		100 220	5% 5%	1/10W 1/10W
JR202	1-216-295-91	METAL GLAZE 0	5%	1/10W	R148	1-208-774-11		470		1/10W
JR301	1-216-295-91	METAL GLAZE 0	5%	1/10W						(KV-25C3B)
JR302 JR303	1-216-295-91 1-216-295-91	METAL GLAZE 0 METAL GLAZE 0	5% 5%	1/10W 1/10W	R149	1-216-073-00	METAL GLAZE	10K	5%	1/10W (KV-25C3B)
JR1001	1-216-295-91	METAL GLAZE 0	5%	1/10W	R151	1-208-774-11	METAL CHIP	470	0.50%	1/10W
JR1002	1-216-295-91	METAL GLAZE 0 METAL GLAZE 0	5%	1/10W	D1E0	1-216-067-00	METAL GLAZE	5.6K	5%	(KV-25C3B)
JR1003 JR1004	1-216-295-91 1-216-295-91	METAL GLAZE 0	5% 5%	1/10W 1/10W	R152	1-210-00/-00	METAL GLAZE	3.0K	24	1/10W
JR1006	1-216-295-91	METAL GLAZE 0	5%	1/10W	R153	1-216-311-00	METAL GLAZE	6.8	5%	1/10W
TD1000	1 016 005 01			4 /4 000	R154	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
JR1008 JR1009	1-216-295-91 1-216-295-91	METAL GLAZE 0 METAL GLAZE 0	5% 5%	1/10W 1/10W	R156	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W (KV-25C3B)
JR1010	1-216-295-91	METAL GLAZE 0	5%	1/10W	R157	1-216-025-91	METAL GLAZE	100	5%	1/10W
JR1011	1-216-295-91	METAL GLAZE 0	5%	1/10W						(KV-25C3B)
JR1301	1-216-295-91	METAL GLAZE 0	5%	1/10W	R159	1-216-304-11	METAL GLAZE	3.3	5%	1/10W
JR1302	1-216-295-91	METAL GLAZE 0	5%	1/10W	R160	1-216-039-00	METAL GLAZE	390	5%	1/10W
JR1402	1-216-295-91	METAL GLAZE 0	5%	1/10W	R162	1-216-089-91	METAL GLAZE	47K	5%	1/10W
JR1403	1-216-295-91	METAL GLAZE 0	5%	1/10W	R163 R166	1-216-039-00 1-216-039-00	METAL GLAZE METAL GLAZE	390 390	5% 5%	1/10W 1/10W
R101	1-216-061-00	METAL GLAZE 3.3	K 5%	1/8W	KIOO	1-210-039-00	MEINI GINGE	330	20	1/10#
R102	1-216-025-91	METAL GLAZE 100	5%	1/10W	R167	1-216-039-00	METAL GLAZE	390	5%	1/10W
R103 R104	1-216-025-91	METAL GLAZE 100		1/10W	R168	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R104 R106	1-216-073-00 1-216-033-00	METAL GLAZE 10R METAL GLAZE 220		1/10W 1/10W	R169 R170	1-216-067-00 1-216-021-00	METAL GLAZE METAL GLAZE	5.6K 68	5% 5%	1/10W 1/10W
				,	R171		METAL GLAZE	68	5%	1/10W
R107	1-216-295-91	METAL GLAZE 0	5%	1/10W	D170	1 016 001 00	VEM31 (1117	CO	FO.	1/100
R108 R109	1-216-057-00 1-216-085-00		K 5%	1/10W 1/10W	R172 R173	1-216-021-00 1-216-021-00	METAL GLAZE METAL GLAZE	68 68	5% 5%	1/10W 1/10W
R110	1-216-097-91			1/10W	R174	1-216-051-00		1.2K	5%	1/10W
R111	1-216-041-00	METAL GLAZE 470	5%	1/10W	R175	1-216-089-91		47K	5%	1/10W
R112	1-216-041-00	METAL GLAZE 470	5%	1/10W	R176	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R113	1-216-041-00	METAL GLAZE 470		1/10W	R177	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R114	1-216-311-00	METAL GLAZE 6.8		1/10W	R178	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R115 R116	1-216-311-00 1-216-311-00	METAL GLAZE 6.8 METAL GLAZE 6.8		1/10W 1/10W	R179 R180	1-216-113-00 1-216-113-00	METAL GLAZE METAL GLAZE	470K 470K		1/10W 1/10W
					R181	1-216-071-00				1/10W
R117 R118	1-216-022-00 1-216-022-00	METAL GLAZE 75 METAL GLAZE 75	5% 5%	1/10W 1/10W	R182	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R119	1-216-022-00	METAL GLAZE 75	5%	1/10W	R183	1-216-033-00	METAL GLAZE	220	5%	1/10W
R120	1-216-022-00	METAL GLAZE 75	5%	1/10W	R184	1-216-033-00	METAL GLAZE	220	5%	1/10W
R121	1-216-022-00	METAL GLAZE 75	5%	1/10W	R185 R186	1-216-033-00 1-216-057-00	METAL GLAZE METAL GLAZE	220 2.2K	5% 5%	1/10W 1/10W
R122 R123	1-216-073-00 1-216-073-00	METAL GLAZE 10R METAL GLAZE 10R		1/10W 1/10W	R187	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R124	1-216-113-00		K 5%	1/10W	R188	1-216-113-00	METAL GLAZE	470K		1/10W
R126	1-216-039-00	METAL GLAZE 390	5%	1/10W	R189	1-218-755-11	METAL CHIP	130K	0.50%	1/10W
R127	1-216-039-00	METAL GLAZE 390	5%	1/10W	R190 R191	1-216-075-00 1-216-069-00	METAL GLAZE METAL GLAZE	12K 6.8K	5% 5%	1/10W 1/10W
R128	1-216-113-00	METAL GLAZE 470	K 5%	1/10W						- ,

5% 5% 5% 5%

1/10W

1/10W 1/10W 1/10W

1/10W

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1K

1-216-029-00 METAL GLAZE

1-216-029-00 METAL GLAZE 1-216-029-00 METAL GLAZE 1-216-049-91 METAL GLAZE 1-216-049-91 METAL GLAZE

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REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK	REF.NO.	PART NO.	DESCRIPTION	N		REMARK
R192	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1047	1-216-009-00	METAL GLAZE	22	5%	1/10W
R193	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1048	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R194	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1050	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R195 R196	1-216-073-00 1-216-113-00	METAL GLAZE METAL GLAZE	10K 470K	5% 5%	1/10W 1/10W	R1051 R1052	1-216-057-00 1-216-037-00	METAL GLAZE METAL GLAZE	2.2K 330	5% 5%	1/10W 1/10W
R197 R198	1-216-073-00 1-216-113-00	METAL GLAZE METAL GLAZE	10K 470K	5% 5%	1/10W 1/10W	R1053 R1056	1-216-065-00 1-216-049-91	METAL GLAZE METAL GLAZE	4.7K 1K	5% 5%	1/10W 1/10W
R199	1-216-113-00	METAL GLAZE	22K	5%	1/10W	R1059	1-216-043-91	METAL GLAZE	10K	5%	1/10W 1/10W
R200	1-216-049-91	METAL GLAZE	1K	5%	1/10W	R1060	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R201	1-216-049-91	METAL GLAZE	1K	5%	1/10W	R1061	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R202	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	R1062	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R203	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	R1063	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R204	1-216-049-91	METAL GLAZE	1K	5%	1/10W	R1064	1-247-839-11	CARBON	2.2K	5%	1/4W
R205	1-216-037-00	METAL GLAZE	330	5%	1/10W	R1070	1-216-025-91	METAL GLAZE	100	5%	1/10W
R207	1-216-039-00	METAL GLAZE	390	5%	1/10W	R1071	1-216-025-91	METAL GLAZE	100	5%	1/10W
R208	1-216-039-00	METAL GLAZE	390	5%	1/10W	R1075	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R213	1-216-025-91	METAL GLAZE	100	5%	1/10W	R1301	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R214	1-216-025-91	METAL GLAZE METAL GLAZE	100	5%	1/10W	R1302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R215 R272	1-216-025-91 1-216-295-91	METAL GLAZE	100 0	5% 5%	1/10W 1/10W	R1303 R1304	1-216-037-00 1-216-037-00	METAL GLAZE METAL GLAZE	330 330	5% 5%	1/10W 1/10W
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R311	1-216-095-00	METAL GLAZE	82K	5%	1/10W	R1325	1-216-009-00	METAL GLAZE	22	5%	1/10W
R312 R313	1-216-077-00 1-216-025-91	METAL GLAZE METAL GLAZE	15K 100	5% 5%	1/10W 1/10W	R1340 R1341	1-216-037-00 1-216-017-91	METAL GLAZE METAL GLAZE	330 47	5% 5%	1/10W 1/10W
R314	1-216-023-91	METAL GLAZE	220	5%	1/10W	R1342	1-216-017-91	METAL GLAZE	47	5%	1/10W
R315	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1344	1-216-037-00	METAL GLAZE	330	5%	1/10W
R317	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R1401	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R330	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1402	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R331	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1403	1-216-025-91	METAL GLAZE	100	5%	1/10W
R332	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1404	1-216-025-91	METAL GLAZE	100	5%	1/10W
R333	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1406	1-216-037-00	METAL GLAZE	330	5%	1/10W
R334	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1407	1-216-037-00	METAL GLAZE	330	5%	1/10W
R335	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1410	1-216-041-00	METAL GLAZE	470	5%	1/10W
R336	1-216-041-00	METAL GLAZE	470	5%	1/10W	R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W
R337 R338	1-216-041-00 1-216-041-00	METAL GLAZE METAL GLAZE	470 470	5% 5%	1/10W 1/10W	R1412 R1413	1-216-041-00 1-216-041-00	METAL GLAZE METAL GLAZE	470 470	5% 5%	1/10W 1/10W
X330	1-210-041-00	MEINU GUNDE	2/0	20	1/10#	MITIS		MBIRD GURZE	7/0	20	1/10#
R340	1-216-017-91	METAL GLAZE	47	5%	1/10W	R1414	1-216-041-00	METAL GLAZE	470	5%	1/10W
R341	1-216-025-91	METAL GLAZE METAL GLAZE	100	5%	1/10W	R1415	1-216-041-00	METAL GLAZE	470 470	5%	1/10W
R342 R343	1-216-025-91 1-216-073-00	METAL GLAZE	100 10K	5% 5%	1/10W 1/10W	R1416 R1417	1-216-041-00 1-216-041-00	METAL GLAZE METAL GLAZE	470 470	5% 5%	1/10W 1/10W
R345	1-216-025-91	METAL GLAZE	100	5%	1/10W	R1418	1-216-041-00	METAL GLAZE	470	5%	1/10W
			220		1/10W	R1420	1-216-049-91		17		1/10W
R351 R352	1-216-037-00 1-216-049-91		330 1K	5% 5%	1/10W 1/10W	R1420 R1421	1-216-049-91		1K 820	5% 5%	1/10W 1/10W
R353	1-216-041-00		470	5%	1/10W	R1422	1-216-051-00		1.2K	5%	1/10W
R374	1-216-049-91		1K	5%	1/10W	R1423	1-216-045-00		680	5%	1/10W
R1001	1-216-049-91	METAL GLAZE	1K	5%	1/10W	R1424	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1011	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1425	1-216-047-91	METAL GLAZE	820	5%	1/10W
R1012	1-216-041-00		470	5%	1/10W	R1430	1-216-025-91		100	5%	1/10W
R1030	1-216-073-00		10K	5%	1/10W	R1431	1-216-025-91		100	5%	1/10W
R1033 R1034	1-216-295-91		0 1017	5% 5%	1/10W 1/10W	R1433 R1434	1-216-043-91		560 560	5% 5%	1/10W
	1-216-073-00		10K	5%	1/10W	KT#3#	1-216-043-91		560	5%	1/10W
R1036	1-216-049-91		1K	5%	1/10W	R1435	1-216-043-91		560	5%	1/10W
R1037	1-216-049-91		1K	5%	1/10W	R1436	1-216-069-00		6.8K	5%	1/10W
R1038 R1039	1-216-049-91 1-216-049-91		1K 1K	5% 5%	1/10W 1/10W	R1440 R1441	1-216-037-00 1-216-049-91		330 1K	5% 5%	1/10W 1/10W
R1039	1-216-049-91		1K	5% 5%	1/10W 1/10W	R1442	1-216-049-91		1K	5% 5%	1/10W 1/10W
MAVIV	T NTA-017-3T	com Gunus		- 0	-/	*****	T NTA-017-3T	GHRUB		- 0	-/

R1450

R1451

R1452

R1461

R1462

1K

100

100 5%

10K

100

5% 5%

1/10W

1/10W 1/10W

1/10W

1/10W

1-216-049-91 METAL GLAZE

1-216-025-91 METAL GLAZE 1-216-025-91 METAL GLAZE 1-216-073-00 METAL GLAZE 1-216-025-91 METAL GLAZE

R1041

R1042

R1044

R1045

R1046

KV-250	3		The components identified by shading and marked $ ilde{ ilde{L}}$ are critical une trame et une marque $ ilde{ ilde{L}}$ sont						
Α	AN	G	for safety	only with the	e part number	critiques Ne les re	pour la secu mplacer que numero spe	rite. par une	
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	N		REMARK
R2001 R2002 R2020	1-216-025-91 1-216-049-91 1-216-041-00	METAL GLAZE 1K 5% 1 METAL GLAZE 470 5% 1	/10W ./10W ./10W		*A-1636-021-A	***********			
R2021 R2022	1-216-057-00	METAL GLAZE 2.2K 5% 1	./10W ./10W		*4-203-609-01 < CAP	HOLDER, G ACITOR >			
R2023 R2024 R2025 R2026 R2027	1-216-063-91 1-216-049-91 1-216-025-91 1-216-025-91 1-216-057-00	METAL GLAZE 1K 5% 1 METAL GLAZE 100 5% 1 METAL GLAZE 100 5% 1	./10W ./10W ./10W ./10W ./10W	C602 C603 C604 C605 C606	1-165-127-11 1-165-127-11 1-136-171-00 1-137-399-11 1-136-171-00	CERAMIC FILM	470PF 470PF 0.33MF 0.1MF 0.33MF	10% 10% 5% 5% 5%	500V 500V 50V 50V 50V
R2028 R2031 R2032 R2033 R2034	1-216-009-00 1-216-017-91 1-216-017-91 1-216-017-91 1-216-295-91	METAL GLAZE 47 5% 1 METAL GLAZE 47 5% 1 METAL GLAZE 47 5% 1	./10W ./10W ./10W ./10W ./10W	C607 C608 C609 C610 C611	1-137-399-11 1-164-625-11 1-129-718-00 1-126-953-11 1-126-953-11		0.1MF 680PF 0.022MF 2200MF 2200MF	5% 10% 5% 20% 20%	50V 500V 630V 35V 35V
R2035 R2037 R2040 R2041	1-216-017-91 1-216-049-91 1-216-057-00 1-216-025-91	METAL GLAZE 1K 5% 1 METAL GLAZE 2.2K 5% 1 METAL GLAZE 100 5% 1	./10W ./10W ./10W ./10W	C612 C613 C614 C615 C616	1-124-903-11 1-128-548-11 1-128-548-11 1-110-626-11 1-164-625-11	ELECT	1MF 4700MF 4700MF 330MF 680PF	20% 20% 20% 20% 10%	50V 25V 25V 160V 500V
TU101	1-693-338-11	TUNER (TUVIF) (AEP)		C617	1-136-559-11		0.0047MF	10%	400V
			(25C3D/25C3E) BB)	C618	1-104-989-91 \(\lambda\) 1-136-519-12	FILM FILM	0.0022MF 0.47MF	5% 20%	200V 300V
	< CRY	STAL >			A 1-136-518-12 A 1-113-890-61	FILM CERAMIC	0.33MF 0.0022MF	20% 20%	300V 250V
X200 X301 X302 X1001 X1401	1-567-505-11 1-567-504-11	OSCILLATOR, CRYSTAL (4.43ME VIBRATOR, CERAMIC (20.48MEz	(z) (z) ()	C626 A C627 C628 C629 C630	1-164-503-61 1-126-940-11 1-126-965-11 1-162-599-12 1-162-599-12	CERAMIC ELECT ELECT CERAMIC CERAMIC	0.0022MF 330MF 22MF 0.0047MF 0.0047MF	20% 20% 20%	400V 25V 50V 250V 250V
X1402 X1403		OSCILLATOR, CRYSTAL (4.43ME VIBRATOR, CERAMIC (20.48MEz		C631 A	1-161-964-91 1-125-555-11	CERAMIC ELECT	0.0047MF 330MF	20%	250V 400V
******	*******	********	******	C635 C636	1-136-165-00 1-136-165-00	FILM FILM	0.1MF 0.1MF	5% 5%	50V 50V
	*A-1630-690-A	AN BOARD, COMPLETE		C648	1-126-964-11	CERAMIC	10MF 0.001MF	20%	50V 50V
	< CAP	ACITOR >		C650 C651	1-126-964-11 1-136-171-00	FILM	10MF 0.33MF	20% 5%	50V 50V
C1061	1-164-505-11	CERAMIC CHIP 2.2MF	16V	C662 C663	1-126-943-11 1-126-964-11		2200MF 10MF	20% 20%	25V 50V
	< CON	NECTOR >		C664 C665	1-102-129-00 1-126-940-11		0.01MF 330MF	10% 20%	50V 25V
CN1013	*1-564-507-11	PLUG, CONNECTOR 4P				NECTOR >			
	< DIO				1-508-786-11				
D1012		DIODE DAN202K		CN0701	1-508-765-11 1-573-299-21	CONNECTOR, BO	DARD TO BOAR	D 10P	
IC1006	< IC 8-759-988-13			CN0702 CN0703 🛭	1-695-300-11 \(\text{*1-691-291-11}\)				
101000		NSISTOR >			< DIO	DE >			
Q1015		TRANSISTOR DTC114EK		D601 D602	8-719-510-53 8-719-991-33				
-		ISTOR >		D603 D605	8-719-109-89 8-719-0 4 7-31	DIODE RD5.6ES DIODE RBA-402	3B2 ?L		
R1076 R1077 R1078 R1079	1-216-073-00 1-216-073-00 1-216-073-00 1-216-075-00	METAL GLAZE 10K 5% 1 METAL GLAZE 10K 5% 1	./10W ./10W ./10W ./10W	D607 D608		SCREW (M3X10) DIODE D10SC4M SCREW (M3X10)	, P, SW (+) (, P, SW (+)		
				D609	8-719-047-31	DIODE RBA-402	ΣL		

The components identified by shading and marked \triangle are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque $ilde{\Lambda}$ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



EF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	N			REMAR
610		DIODE R2K-V1		Q621	8-729-200-21	TRANSISTOR 25	C2500-B			
611	8-719-510-64	DIODE S2LA20F			< RES	SISTOR >				
614		DIODE 188119-25								
615		DIODE 188119-25		R601	1-202-933-61			10%	1/2W	F
616		DIODE 188119-25		R602	1-247-891-00		330K		1/4W 1/4W	
517 518		DIODE 188119-25 DIODE 188119-25		R603 R604	1-247-891-00 1-216-369-00	CARBON METAL OXIDE	330K 1	⊃ক 5%	1/4W 2W	F
10	0-/13-311-13	DIODE 100113-23		R605	1-247-891-00	CARBON	330K		1/4W	F
19	8-719-911-19	DIODE 188119-25		MVVJ	1 11, 051 00	CILLDON	330M	-	-/ -!!	
20		DIODE 188119-25		R606	1-247-891-00	CARBON	330K	5%	1/4W	
21		DIODE 188119-25		R607	1-216-369-00	METAL OXIDE		5%	2W	F
22		DIODE S2LA20F		R608	1-247-887-00		220K		1/4W	_
23	8-719-510-64	DIODE S2LA20F		R609 R610	1-249-429-11 1-249-419-11			5% 5%	1/4W 1/4W	
25	8-719-911-19	DIODE 188119-25		KOTO	1-243-413-11	CARBON	1.54	36	1/48	
26		DIODE 188119-25		R611	1-249-377-11	CARBON	0.47	5%	1/4W	F
27		DIODE 188119-25		R614	1-247-807-31			5%	1/4W	-
28		DIODE 1SS119-25			1-205-949-11	WIREWOUND		5%	10W	
29	8-719-991-33	DIODE 1SS133T-77			1-205-949-11			5%	10W	
٠,	0 710 001 22	DTODE 144122W 77		R619 🛮	1-244-945-91	CARBON	1M	5%	1/2W	
30 33		DIODE 1SS133T-77 DIODE 1SS133T-77		R620 A	1-218-265-11	METAL	8.2M	5%	1W	
34		DIODE S2LA20F		R621	1-249-417-11	CARBON		5%	1/4W	F
35		DIODE 1SS133T-77		R622	1-249-430-11			5%	1/4W	-
16	8-719-511-40	DIODE S1VB40		R623	1-249-436-11	CARBON	39K	5%	1/4W	
				R624	1-249-425-11	CARBON	4.7K	5%	1/4W	
	< FEI	RRITE BEAD >		200	1 045 045 04	41 PP 411			4 /444	
501	1 410 206 41	FERRITE BEAD INDUCTOR	A 45110	R625 R626	1-247-815-91 1-247-863-91			5% 5%	1/4W 1/4W	
502		FERRITE BEAD INDUCTOR		R627	1-247-815-91			5% 5%	1/4W	
03		FERRITE BEAD INDUCTOR		R628	1-247-807-31			5%	1/4W	
504		FERRITE BEAD INDUCTOR		R629	1-249-428-11	CARBON	8.2K		1/4W	
									•	
	< IC	>		R636	1-207-905-00			10%	2W	F
601	1 010 051 11	DAWER WARRED DW 40		R637 R639	1-249-389-11 1-247-791-91	CARBON CARBON		5%	1/4W 1/4W	F
		POWER MODULE DM-48 PHOTO COUPLER PC123FY2		R640	1-247-791-91	CARBON		5% 5%	1/4W	
603	8-759-510-52			R641	1-247-791-91			5%	1/4W	
								-	•	
	< COI	II >		R642	1-247-791-91			5% F0.	1/4W	
05	1_410_500_11	INDUCTOR 6.8UH		R651 R652	1-215-880-00 1-247-891-00		10 330K	5% E&	2W 1/4W	F
)6	1-412-523-11 1-412-523-11			R653	1-247-891-00			5%	1/4W	
,,,	1-112-525-11	INDUCTOR U.UUL		R654	1-247-891-00		330K		1/4W	
	< TRA	Ansformer >							,	
502 A	1-429-860-11	TRANSFORMER, LINE FILT	'RR	R655 R656	1-247-891-00 1-249-439-11		330K 68K	ວຮ 5%	1/4W 1/4W	
V= <u>/1</u>	7-455-000-TI	TOWNSE CHIEF ! HIND FILL	1 0000	R657	1-249-429-11			5%	1/4W	
	< IC	LINK >		R658	1-249-421-11	CARBON	2.2K	5%	1/4W	
				R659	1-249-425-11		4.7K		1/4W	
		PROTECTOR MODULE 2.5A			4 6/4 400 71	41 DB 61-	4.0-	=-		
		PROTECTOR MODULE 2.5A,		R660	1-249-429-11			5% E%	1/4W	
04 Δ 05 Δ	1-801-55U-21	PROTECTOR MODULE 2.5A, PROTECTOR MODULE 4.0A,	MP430	R661 R662	1-249-421-11 1-249-421-11		2.2K 2.2K		1/4W 1/4W	
UJ A	7-001-342-51	PACIFICION MODULE 1.VA	ME TUU	R663	1-249-429-11			ວຈ 5%	1/4W	
	< TRA	ANSISTOR >		R664	1-249-429-11			5%	1/4W	
	0 000 000 00	MD1W4T4MAD 044/00/	100	DCC=	1 040 000 11	ar ppor	A 45	F0.		_
01		TRANSISTOR 2SC4834NP-1 SCREW (M3X10), P, SW		R667 R670	1-249-377-11 1-249-421-11		0.47 2.2K		1/4W 1/4W	
)2		TRANSISTOR 2SC4834NP-1		A0/U	T-743-46T-TT	CUVDON	4.4R	70	1/ 4M	
-		SCREW (M3X10), P, SW			< REI	AY >				
3		TRANSISTOR 2SC2785-HF1								
					1-755-167-11					
04		TRANSISTOR 2SC2500-B		RY602 /	£ 1-755-167-11	RELAY, AC PO	IER .			
)5		TRANSISTOR 2SC2500-B			, gran	י מפאטטאטען				
)8 .0		TRANSISTOR 2SC2500-B TRANSISTOR 2SA1175-HFI	!		< TRA	insformer >				
.0 .1		TRANSISTOR 2SC1740S-R		T601	↑ 1-429-844-11	TRANSFORMER.	CONVERT	ER (P	IT)	
	J 125-115-10		•		1-429-254-11	TRANSFORMER.	CONVERT	ER (P	RT)	
	8_729_119_76	TRANSISTOR 2SA1175-HF	!		1-429-952-11					
.2										



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REF.NO.	PART NO.	DESCRIPTION	ON		REMARK	REF.NO.	PART NO.	DESCRIPTION	<u>N</u>			REMARK
	< THE	RMISTOR >				L3709	1-408-409-00	INDUCTOR	10 UH			
THP601	<u>↑</u> 1-809-827-11	THERMISTOR,	POSITIVE				< TRA	NSISTOR >				
	< VAR	RISTOR >				Q3701	8-729-906-70					
VDR601	1-810-977-21	VARISTOR ER	ZV10D621			Q3702 Q3703	8-729-906-70 8-729-906-70					
						Q3704	8-729-326-11	TRANSISTOR 2	SC2611	•		
******						Q3705	8-729-326-11					
	*A-1638-097-A	C BOARD, COL				Q3706 Q3707	8-729-326-11 8-729-200-17			0		
	4-382-854-11	CCDPW /W2V1/	n) no cam (±	١		Õ3708 Õ3709	8-729-200-17 8-729-200-17	TRANSISTOR 2	SA1091-	0		
			<i>V) , E , DN</i> (T	,		Q3709 Q3710	8-729-119-78					
	< CAP	ACITOR >				Q3711	8-729-119-78	TRANSISTOR 2	SC2785-1	HFE		
C3701	1-162-114-00		0.0047MF		2KV	Q3712	8-729-119-78	TRANSISTOR 2	SC2785-1	HFE		
C3703	1-107-662-11		22MF	20%	250V	Q3715	8-729-119-76					
C3712	1-102-978-00		220PF	5%	50V 50V	Q3716	8-729-906-70 8-729-906-70	TRANSISTOR B				
C3713 C3714	1-102-978-00 1-102-978-00	CERAMIC	220PF 220PF	5% 5%	50V 50V	Q3717	0-149-900-10	TRANSISTOR B	F0/1-12	,		
						Q3718	8-729-906-70	TRANSISTOR B	F871-12	7		
C3716 C3720	1-128-528-11 1-162-116-00		470MF 680PF	20% 10%	16V 2KV		< RES	ISTOR >				
	< CON	NECTOR >				R3701	1-202-884-11	SOLID	820K	20%	1/2W	
						R3702	1-202-884-11			20%	1/2W	
CN3701	1-695-915-11					R3703	1-202-549-00	SOLID	100	20%	1/2W	
CN3703	*1-564-512-11			\ FD		R3705	1-216-349-00		1	5%	1W	F
CN3704	*1-508-767-00	PIN, CONNECT	TOR (5MM PIT	CH) 5P		R3706	1-216-349-00	METAL OXIDE	1	5%	1W	F
	< DIC	DE >				R3707	1-249-416-11		820	5%	1/4W	
D3701	8-719-991-33	DTODE 10012	om 77			R3708 R3709	1-249-416-11 1-249-416-11		820 820	5% 5%	1/4W 1/4W	
D3701	8-719-991-33					R3710	1-215-922-11		6.8K	5%	3W	F
D3703	8-719-991-33	DIODE 188133				R3711	1-202-549-00	SOLID	100	20%	1/2W	•
D3704	8-719-991-33	DIODE 188133									•	_
D3705	8-719-991-33	DIODE 188133	3T-77			R3712 R3713	1-215-922-11 1-202-549-00	METAL OXIDE SOLID	6.8K 100	5 % 20%	3W 1/2W	F
D3706	8-719-991-33	DIODE 188133	3T-77			R3714	1-215-922-11	METAL OXIDE	6.8K	20°5 5%	3W	F
D3707	8-719-991-33					R3715	1-202-549-00	SOLID	100	20%	1/2W	-
D3708	8-719-991-33	DIODE 188133				R3716	1-249-405-11	CARBON	100	5%	1/4W	F
D3709	8-719-991-33	DIODE 188133	3T-77			20040	1 040 405 11	as prou	100		4 /4**	_
D3710	8-719-908-03	DIODE GP08D				R3717 R3718	1-249-405-11 1-249-405-11		100 100	5% 5%	1/4W 1/4W	
D3711	8-719-901-83	DIODE 18883				R3721	1-247-885-00		180K		1/4W	
D3712	8-719-901-83	DIODE 1SS83				R3723	1-247-885-00	CARBON	180K	5%	1/4W	
D3713	8-719-901-83					R3725	1-249-419-11	CARBON	1.5K	5%	1/4W	
D3714	8-719-991-33	DIODE 188133				2000	1 040 410 11	ar prov	4		4 /4**	
D3715	8-719-018-82	DIODE RGP02-	-20EL-0394			R3726 R3727	1-249-419-11 1-249-419-11	CARBON	1.5K 1.5K	⊃₹ 5%	1/4W 1/4W	
D3716	8-719-991-33	DIODE 188133	3T-77			R3728	1-247-815-91	CARBON	220	5%	1/4W	
D3717	8-719-991-33	DIODE 188133				R3729	1-247-815-91	CARBON	220	5%	1/4W	
D3718	8-719-991-33	DIODE 188133				R3730	1-247-815-91	CARBON	220	5%	1/4W	
D3719	8-719-991-33	DIODE 188133	3T-77			R3731	1-249-403-11	CARBON	68	5%	1/4W	
	< CRT	SOCKET >				R3732	1-249-403-11	CARBON	68	5%	1/4W	
						R3733	1-249-403-11	CARBON	68	5%	1/4W	
J3701 🛮	1-526-990-21	SOCKET, CRT				R3734	1-202-549-00	SOLID	100	20%	1/2W	
	< COI	IL >				R3735	1-247-885-00	CARBON	180K	5%	1/4W	
						R3738	1-249-401-11	CARBON	47	5%	1/4W	
L3701 L3702	1-408-607-31 1-408-607-31		22UH 22UH			R3739 R3740	1-249-401-11 1-249-401-11	CARBON CARBON	47 47	5% 5%	1/4W 1/4W	
L3702 L3703	1-408-409-00		10UH			R3740 R3741	1-249-435-11	CARBON	33K	5₹ 5%	1/4W	
L3704	1-408-607-31		22UH			R3742	1-249-429-11	CARBON	10K	5%	1/4W	
L3705	1-408-409-00	INDUCTOR	10UH					GA DDOM		-	,	
L3706	1-408-607-31	INDUCTOR	22UH			R3743 R3747	1-249-430-11 1-216-437-00	CARBON METAL OXIDE	12K 5.6K	5% 5%	1/4W 1W	F
L3707	1-408-409-00		10UH			R3748	1-247-885-00	CARBON		5%	1/4W	-
L3708	1-412-528-11		18UH			R3749	1-216-437-00	METAL OXIDE	5.6K		1W	F
						•						

											C	D
REF.NO.	PART NO.	DESCRIPTION	ON			REMARK	REF.NO.	PART NO.	DESCRIPT	<u>ion</u>		REMARK
R3750	1-249-432-11	CARBON	18K	5%	1/4W		C666	1-104-661-91	RLRCT	330MF	20%	16V
20,00	1 117 171 11	OIII DOI	101	50	_, _,,		C667	1-136-165-00		0.1MF	5%	50V
R3751	1-216-437-00	METAL OXIDE	5.6K	5%	1W	F	C668	1-136-165-00		0.1MF	5%	50V
R3752	1-249-431-11		15K	5%	1/4W	•	C669	1-136-165-00		0.1MF	5%	50V
R3758	1-247-807-31		100	5%	1/4W		C670	1-136-165-00		0.1MF	5%	50V
R3759	1-247-807-31		100	5%	1/4W		C070	1-130-103-00	FILM	U. IMF	20	304
R3760	1-247-807-31		100	ეი 5%			C671	1 126 165 00	STIW	0.1MF	5%	50V
K3/60	1-24/-00/-31	CARDON	100	26	1/4W			1-136-165-00			26	
20061	1 040 410 11	ar prov	1 0**	F0.	1 / 4 90		C801	1-123-024-21		33MF	1.00	160V
R3761	1-249-418-11		1.2K	5%	1/4W		C802	1-136-207-11		0.047MF	10%	250V
R3762	1-249-418-11		1.2K	5%	1/4W		C804	1-102-110-00	CERAMIC	220PF	10%	50V
R3763	1-249-418-11	CARBON	1.2K	24	1/4W		C805	1-102-212-00	CERAMIC	820PF	10%	500V
	< VAR	IABLE RESISTO	R >				C808	1-162-116-00	CERAMIC	680PF	10%	2KV
							C809	1-162-116-00		680PF	10%	2KV
RV3701	1-230-641-11	RES, ADJ, ME	TAI. GI.A	ZR 2.2	2M		C810	1-136-558-11		0.0039MF	10%	400V
RV3702		RES, ADJ, ME					C811	1-113-582-11		0.017MF	3%	2KV
M15/02	1 211 /11 11	MDD/ 100/ 100	***** * ***		•		C812	1-129-722-00	FILM	0.047MF	5%	630V
******	**********	*********	******	*****	*****	*******	0011	1 11, /11 00		0.01/mi	•	0301
							C813	1-110-969-11	FILM	0.89MF	5%	400V
	*A-1640-247-A	D BOARD, COM	PLETE				C814	1-129-702-00	FILM	0.001MF	10%	400V
		********					C816	1-110-486-11		1MF	5%	400V
							C817	1-136-759-11		0.039MF	5%	630V
	< CAP	ACITOR >					C819	1-136-207-11		0.047MF	10%	250V
	, 422						3325					
C101	1-126-965-11	ELECT	22MF		20%	50V	C822	1-126-967-11	ELECT	47MF	20%	50V
C236	1-136-165-00	FILM	0.1MF		5%	50V	C823	1-102-129-00	CERAMIC	0.01MF	10%	50V
C237	1-136-165-00		0.1MF		5%	50V	C824	1-162-117-00	CERAMIC	100PF	10%	500V
C238	1-126-967-11		47MF		20%	16V	C825	1-126-964-11		10MF	20%	50V
C241	1-126-967-11		47MF		20%	16V	C827	1-102-228-00	CERAMIC	470PF	10%	500V
C242	1-126-953-11		2200MF		20%	35V	C835	1-107-655-11		47MF	20%	250V
C243	1-136-165-00		0.1MF		5%	50V	C836	1-102-228-00		470PF	10%	500V
C244	1-126-953-11		2200MF		20%	35V	C837	1-102-228-00	CERAMIC	470PF	10%	500V
C245	1-136-165-00		0.1MF		5%	50V	C838	1-102-228-00		470PF	10%	500V
C260	1-126-964-11	ELECT	10MF		20%	50V	C841	1-106-375-12	MYLAR	0.022MF	10%	250V
C261	1-126-964-11	RT.RCT	10MF		20%	50V	C851	1-129-702-00	WIT.M	0.001MF	10%	630V
C262	1-104-665-11		100MF		20%	25V	C852	1-126-968-11		100MF	20%	50V
C263	1-136-165-00		0.1MF		5%	50V	C854	1-102-129-00	CERAMIC	0.01MF	10%	50V
C264	1-126-933-11		100MF		20%	16V	C855	1-102-129-00		470MF	20%	25V
C265	1-136-165-00	FILM	0.1MF		5%	50V	C856	1-102-129-00	CERAMIC	0.01MF	10%	50V
C203	1-130-103-00	FILM	V. IMP		70	304	C030	1-102-129-00	CERMIC	V.VIMP	104	304
C266	1-104-665-11	ELECT	100MF		20%	25V	C857	1-126-941-11	ELECT	470MF	20%	25V
C269	1-126-967-11		47MF		20%	16V	C860	1-106-220-00	MYLAR	0.1MF	10%	100V
C270	1-136-165-00		0.1MF		5%	50V	C861	1-137-423-11		0.15MF	10%	1007
C271	1-126-965-11	ELECT	22MF		20%	50V	C862	1-130-789-00	FILM	1MF	5%	1007
C272	1-136-165-00	FILM	0.1MF		5%	50V	C866	1-137-040-11		0.0022MF	10%	4007
C273	1-136-161-00	FILM	0.047M	F	5%	50V	C867	1-107-909-11	ELECT	47MF	20%	50V
C274	1-124-925-11		2.2MF		20%	50V	C871	1-136-562-11		0.0082MOF	20%	400V
C275	1-124-925-11		2.2MF		20%	50V	C873	1-162-134-11		470PF	10%	2KV
C276	1-126-967-11	ELECT	47MF		20%	16 V	C874	1-164-645-11	CERAMIC	1000PF	10%	500 V
C277	1-126-934-11	ELECT	220MF		20%	16V	C876	1-136-298-00	FILM	0.0033MF	5%	100V
C278	1_107, 714 11	₽ Т.₽ /*ጥ	10MF		208	16V	C894	1-102-978-00	(PD3WT/	220PF	5%	50V
C278 C279	1-107-714-11 1-126-965-11		10MF 22MF		20% 20%	16V 50V	C894 C900	1-102-978-00		220PF 100PF	5% 5%	50V 500V
C280	1-136-169-00		0.22MF		5%	50V	C901	1-101-810-00		100PF	5%	500V
C281	1-126-967-11		47MF		20%	16V	C902	1-137-372-11		0.022MF	5%	50V
C283	1-136-169-00	FILM	0.22MF		5%	50V	C903	1-137-372-11	FILM	0.022MF	5%	50V
C620	1-126-964-11	ELECT	10MF		20%	50V	C905	1-126-964-11	RLECT	10MF	20%	50V
C639	1-126-964-11		10MF		20%	50V	C906	1-136-166-00	FILM	0.12MF	5%	50V
C652	1-136-171-00		0.33MF		5%	50V	C907	1-124-903-11		1MF	20%	50V
C653	1-104-661-91		330MF		20%	16V	C907	1-124-903-11		1MF	20%	50V
C654	1-104-664-11		330mr 47MF		20%	25V	C909	1-136-153-00		0.01MF	20°5 5%	50V 50V
U037	T-T04-004-TT	anno1	z / mľ		440	234	C303	T-T30-T33-00	ETIM	O. OTHE	20	304
C656	1-126-967-11	ELECT	47MF		20%	16V	C1628	1-136-244-11	FILM	0.1MF	5%	50V
C657	1-136-165-00		0.1MF		5%	50V	C2701	1-126-964-11		10MF	20%	50V
C658	1-136-165-00		0.1MF		5%	50V	C2702	1-104-664-11		47MF	20%	25V
C659	1-136-165-00		0.1MF		5%	50V	C2706	1-102-820-00		330PF	5%	50V
C660	1-136-164-00	FILM	0.082M	F	5%	50V						
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Replace only with the part number specified.

Les composants identifies par une trame et une marque $ilde{ }$ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
		NNECTOR >			< FUS	E >	
CN0001 CN0002 CN0004 CN0005	1-568-878-51 1-695-915-11	PLUG, CONNECTOR 5P PIN, CONNECTOR 3P PIN, CONNECTOR 3P TAB (CONTACT)			1-532-505-41 1-533-725-11 < IC	HOLDER, FUSE ; F601	
CN0101	*1-573-296-21	CONNECTOR, BOARD TO BOARD 1)P	T0026	0.750.100.00	70 MD370CF	
CN0102 CN0521 CN0722 CN0723 CN0743	*1-508-767-00 *1-580-844-11 *1-695-292-11	CONNECTOR, BOARD TO BOARD 20 PIN, CONNECTOR (5MM PITCE) 9 PIN, CONNECTOR (POWER) PIN, CONNECTOR (POWER) PLUG, CONNECTOR 15P		IC236 IC260 IC261		SPRING, IC; IC236 SPACER, INSULATING; IC23 IC TDA7309	36
C770E4E				IC603		IC LM2940T-8.0	TGC02
CN0745 CN0746 CN3133	*1-568-879-11	CONNECTOR, BOARD TO BOARD 40 PIN, CONNECTOR 4P PIN, CONNECTOR 7P)P	IC604	8-759-513-71 4-202-373-01	SPRING, IC; IC604	; 10603
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P		IC606	8-/39-991-43	IC LM78L12ACZ	
	< DIC			IC607 IC801	8-759-513-71 4-202-373-01 8-759-103-93	SPRING, IC; IC607	
D101 D236 D237	8-719-911-19	DIODE MTZJ-33C DIODE 188119-25 DIODE 188119-25		IC802	8-759-192-71		
D238 D239	8-719-911-19	DIODE 188119-25 DIODE 188119-25		IC900 IC901 IC2701	8-742-014-00 8-749-012-12 8-759-603-37		
D262 D264	8-719-911-19	DIODE 188119-25 DIODE 188119-25			< JAC		
D276 D278		DIODE 1SS119-25 DIODE 1SS119-25		J900	1-764-606-11	JACK	
D279		DIODE 188119-25		J901		TERMINAL BLOCK, S 3P	
D280		DIODE 188119-25			< COI	L >	
D281 D282		DIODE 188119-25 DIODE 188119-25		L602	1-412-525-31	INDUCTOR 10UH	
D612	8-719-911-19	DIODE 1SS119-25		L603	1-412-525-31	INDUCTOR 10UH	
D613	8-719-911-19	DIODE 188119-25		L802 L803	1-459-123-00	COIL, DUST CORE (PAC) COIL, DUST CORE (PAC)	
D631		DIODE 188119-25		T809		COIL (WITH CORE) (PMC)	
D632 D633	8-719-911-19 8-719-911-19	DIODE 188119-25 DIODE 188119-25		L807	1-412-524-11	INDUCTOR 8.2UH	
D802	8-719-979-99	DIODE ERD08M-15		L811	1-459-104-00	COIL, WITH CORE 10MH	
	4-382-854-11	SCREW (M3X10), P, SW (+) ; 1	0802	L814		COIL, AIR CORE	
D803	8-719-043-14 4-382-854-11	DIODE ESAD39M-06C SCREW (M3X10), P, SW (+) ; 1	0803	L815 L816	1-410-397-21	FERRITE BEAD INDUCTOR 1.1 INDUCTOR 2.2MMH	LUH
D804 D805	8-719-971-20 8-719-908-03	DIODE ERC38-06 DIODE GP08D		L900 L901	1-408-409-00 1-408-409-00		
D806	8-719-908-03	DIODE GP08D			< TRA	NSISTOR >	
D810		DIODE EGP20G					
D811 D812	8-719-302-43	DIODE EL1Z DIODE D1NL20		Q276 Q277	8-729-030-03	TRANSISTOR DTC144ESA-TP TRANSISTOR 2SA1175-HFE	
D813		DIODE DINL20		Q277		TRANSISTOR 2SC2785-HFE	
D814	8-719-908-03	DIODE GP08D		Q279		TRANSISTOR 2SC2785-HFE	
D815		DIODE RD9.1ESB2		Q280	8-729-119-78		
D816 D817	8-719-110-41 8-719-911-19	DIODE RD15ES-B2 DIODE 1SS119-25		Q281 Q282	8-729-119-78 8-729-119-78		
D818		DIODE 188119-25		Q606	8-729-119-78		
D819	8-719-911-19			Õ607	8-729-029-56	TRANSISTOR DTA144ESA	
D873	8-719-911-19	DIODE 1SS119-25		Q613	8-729-030-03	TRANSISTOR DTC144ESA-TP	
D874	8-719-911-19	DIODE 1SS119-25		Q614		TRANSISTOR DTA144ESA	
D901		DIODE SLA-570KT3F		Q616		TRANSISTOR 2SC2785-HFE	
D2701	*4-203-258-01 8-719-911-19	HOLDER, LED; D901 DIODE 188119-25		Q617 Q618	8-729-029-67 8-729-119-76		
DEIVI	0-113-311-13	PIONE IDUITA-ES		Q620	8-729-119-78		
D2702	8-719-911-19	DIODE 188119-25		-	0 700 440 70	mnawataman	
				Q624	8-729-119-78	TRANSISTOR 2SC2785-HFE	

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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTIO	N		REMARK
Q801	8-729-119-80	TRANSISTOR 2SC2	688-LK		R631	1-215-477-00	METAL	220K 1	L% 1/-	4W
Q802	8-729-821-07	TRANSISTOR 2SC3			R632	1-249-416-11	CARBON		5% 1/4	
-	4-200-399-01	SPACER, IC ; Q80								_
	4-382-854-11	SCREW (M3X10), 1	P, SW (+)	; Q802	R633	1-249-429-11			5% 1/	
0003	0 720 020 60	TRANSISTOR IRF6	20		R634 R635	1-247-895-91	CARBON METAL OXIDE		5% 1/4 5% 3W	
Q803	8-729-039-68 4-202-373-01	SPRING, IC; Q8			R638	1-215-926-00 1-249-425-11	CARBON		5% 3W	
Q804	8-729-039-68	TRANSISTOR IRF6			R644	1-249-425-11	CARBON		5% 1/	
Q2701	8-729-119-78	TRANSISTOR 2SC2							-,	
					R645	1-249-410-11	CARBON		5% 1/	
	< RES	SISTOR >			R647	1-249-420-11	CARBON		5% 1/	
L902	1-249-417-11	CARBON 11	K 5%	1/4W	R665 R666	1-249-425-11	CARBON CARBON		5% 1/4 5% 1/4	
L903	1-249-417-11	CARBON 1		1/4W	R676	1-249-413-11 1-249-437-11	CARBON		5% 1/	
R236	1-249-424-11	CARBON 3	.9K 5%	1/4W	R677	1-249-437-11	CARBON	47K 5	5% 1/4	4w
R237	1-249-417-11	CARBON 11		1/4W	R678	1-249-421-11	CARBON		5% 1/4	
R239	1-249-424-11		.9K 5%	1/4W	R679	1-249-411-11	CARBON		5% 1/4	
R240	1-249-417-11	CARBON 11		1/4W	R802	1-215-916-00	METAL OXIDE		5% 3W	
R244	1-249-413-11	CARBON 4	70 5%	1/4W	R803	1-215-916-00	METAL OXIDE	680 5	5% 3W	F
R245	1-249-430-11		2K 5%	1/4W	R804	1-215-916-00	METAL OXIDE		5% 3W	F
R246	1-249-430-11		2K 5%	1/4W	R805	1-216-487-11			5% 3W	F
R247	1-249-413-11		70 5%	1/4W	R806	1-249-411-11	CARBON		5% 1/	
R248 R249	1-249-425-11 1-216-357-00		.7K 5% .7 5%	1/4W 1W F	R807 R808	1-247-843-11 1-216-384-11	CARBON METAL OXIDE		5% 1/4 5% 3W	₹W
RAZJ	1-210-337-00	MEIRI VAIDE 1	.1 50	IN P	ROUG	1-210-301-11	MEIRI VAIDE	0.33	אכ פינ	
R250	1-216-357-00		.7 5%	1W F	R809	1-215-880-00	METAL OXIDE		5% 2₩	F
R251	1-249-429-11		0K 5%	1/4W	R810	1-215-914-11	METAL OXIDE		5% 3W	F
R252	1-249-429-11		OK 5%	1/4W	R811	1-216-434-11	METAL OXIDE		5% 1W	. F
R260 R261	1-247-863-91 1-247-863-91		2K 5% 2K 5%	1/4W 1/4W	R817 R818	1-202-972-61 1-249-377-11	FUSIBLE CARBON	_	5% 1/4 5% 1/4	
				·						
R262	1-249-421-11		.2K 5%	1/4W	R819	1-249-377-11	CARBON			4w F
R263 R264	1-249-421-11 1-212-857-00		.2K 5% 0 5%	1/4W 1/4W F	R820 R821	1-214-907-00 1-249-420-11	METAL CARBON		L% 1/∶ 5% 1/∗	
R265	1-249-389-11		.7 5%	1/4W F	R823	1-249-420-11	CARBON		5% 1/-	
R266	1-249-389-11		.7 5%	1/4W F	R835	1-249-432-11	CARBON		5% 1/-	
R267	1-247-815-91	CARBON 2	20 5%	1/4W	R837	1-249-422-11	CARBON	2.7K 5	5% 1/-	4w
R268	1-247-815-91		20 5%	1/4W	R843	1-202-822-00	SOLID		20% 1/2	
R269	1-249-415-11		80 5%	1/4W	R844	1-249-424-11	CARBON		5% 1/-	
R270	1-249-415-11		80 5%	1/4W	R845	1-247-881-00	CARBON		5% 1/	
R271	1-247-742-11	CARBON 1	80 5%	1/2W F	R846	1-249-422-11	CARBON	2.7K 5	5% 1/-	4W
R277	1-249-419-11		.5K 5%	1/4W	R847	1-249-437-11	CARBON		5% 1/	
R278	1-249-441-11		00K 5%	1/4W	R848	1-249-425-11	CARBON		5% 1/	
R279 R280	1-249-429-11 1-249-425-11		OK 5% .7K 5%	1/4W 1/4W	R849 R850	1-249-429-11 1-249-389-11	CARBON CARBON		5% 1/4 5% 1/4	
R281	1-249-437-11		./k 5% 7K 5%	1/4W	R851	1-216-394-00			5% 1/	2N ! P
				·						
R282	1-249-430-11		2K 5%	1/4W	R854	1-249-436-11			5% 1/	
R283 R284	1-249-429-11		0K 5% 8K 5%	1/4W 1/4W	R855 R857	1-249-417-11	CARBON SOLID		5% 1/- 20% 1/:	
R285	1-249-432-11 1-249-425-11		on 56 .7K 5%	1/4W	R859	1-202-822-00 1-249-432-11			20% 1/2 5% 1/4	
R286	1-249-421-11		.2K 5%	1/4W	R860	1-247-843-11			5% 1/-	
R287	1-249-412-11	CARBON 3	90 5%	1/4W	R861	1-249-417-11	CARBON	1K 5	5% 1/ _'	4W
R288	1-249-421-11		.2K 5%	1/4W	R862	1-249-383-11				4W F
R289	1-249-421-11	CARBON 2	.2K 5%	1/4W	R863	1-216-475-11	METAL OXIDE	120 5	5% 3W	F
R290	1-247-807-31		00 5%	1/4W	R865	1-249-436-11			5% 1/	
R291	1-249-421-11	CARBON 2	.2K 5%	1/4W	R866	1-249-432-11	CARBON	18K 5	5% 1/-	ł W
R292	1-249-429-11		0K 5%	1/4W	R867	1-216-389-11			5% 3W	F
R293	1-249-429-11		0K 5%	1/4W	R868	1-249-418-11			5% 1/-	
R294	1-249-429-11		OK 5%	1/4W	R895	1-215-866-11			5% 1W	
R295 R296	1-247-885-00 1-247-885-00		80K 5% 80K 5%	1/4W 1/4W	R900 R908	1-247-815-91 1-249-401-11			5% 1/4 5% 1/4	
MEJU	T-741-003-00	CARDON I	0VR J70	·	NJ U O	T-517-17	CHADOM	7/ 3	±/·	211
R297	1-247-807-31		00 5%	1/4W	R909	1-249-437-11			5% 1/	
R298	1-247-807-31		00 5%	1/4W	R910	1-249-437-11			5% 1/	
R630	1-249-429-11	CARBON 1	0K 5%	1/4W	R911	1-249-425-11	CARBUN	4.7K 5	5% 1/4	2 M

Replace only with the part number specified.

Les composants identifies par une trame et une marque $\, \triangle \,$ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

	<u> </u>							
REF.NC	D. PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
R912	1-249-421-11	CARBON 2.2K 59	s 1/4W		< CON	NECTOR >		
R913	1-249-425-11							
D014	1 040 401 11	CLUDOW 1 17 FG	. 1/499	CN1701		CONNECTOR, BOAR		8P
R914 R916	1-249-421-11 1-247-807-31			CN1830	*1-308-884-31	PIN, CONNECTOR	12	
R917	1-259-880-11	CARBON 2.2M 59			< DIO	DE >		
R922	1-249-406-11							
R923	1-249-406-11	CARBON 120 59	s 1/4W	D1701 D1702		DIODE DAN202K DIODE DA204K		
R925	1-249-429-11	CARBON 10K 59	s 1/4W	D1702		DIODE MTZJ-39C		
R926	1-249-429-11	CARBON 10K 59		D1705		DIODE MTZJ-39C		
R2701				D1706	8-719-914-42	DIODE DA204K		
R2702 R2703				D1708	8-710-014-42	DIODE DA204K		
M2/03	1-21/-003-71	CARDON 22K J) <u> </u>	D1709		DIODE DA204K		
R2704		CARBON 22K 59				_		
R2705 R2706					< COI	L >		
R2708				L1702	1-408-410-00	INDUCTOR	12UH	
R2719				/-				
	ALIII.				< TRA	NSISTOR >		
	< SWI	TCH >		Q1701	9-720-001-50	TRANSISTOR BF19	10	
S601	△ 1-571-433-21	SWITCH, PUSH (AC POWER	()	Q1701		TRANSISTOR 2SA1	-	
8900	1-692-979-11	SWITCH, TACTILE	•	Q1703	8-729-017-05	TRANSISTOR 2SAI	L837	
S901		SWITCH, TACTILE		01504	4-382-854-11	SCREW (M3X10),	P, SW (+)	; Q1703
8902	1-692-979-11	SWITCH, TACTILE		Q1704	8-729-920-74	TRANSISTOR 2SC2	417K-ÖK	
	< TRA	INSFORMER >		Q1705		TRANSISTOR 2SC4		
			·—-\		4-382-854-11	SCREW (M3X10),	P, SW (+)	; Q1705
T801 T803		TRANSFORMER, FERRITE TRANSFORMER, FERRITE		Q1706		TRANSISTOR 2SC2		
T804	1-429-287-11		(PMI)	Q1707 Q1708		TRANSISTOR BF19		
T805		TRANSFORMER ASSY, FLYI					-	
			(NX-4003/U2B4)	01710		TRANSISTOR 2SA1		
	< THE	RMISTOR >		Q1711 Q1712		TRANSISTOR BC54 TRANSISTOR BC55		
		inmibion >		*	0 /25 005 25	IMMEDIATION DOS.	,,,,	
TH801	1-800-193-00	THERMISTOR (DIRECT-HEA		< RES	ISTOR >			
****	*************	******************	1-216-296-91	METAL GLAZE () 5%	1/8W		
				JR1701 JR1702	1-216-296-91			1/8W
	*A-1644-077-A	VM BOARD, COMPLETE						•
		*******		L1701	1-216-296-91	METAL GLAZE () 5%	1/8W
	< CAP	PACITOR >		R1701	1-216-025-91	METAL GLAZE 1	L00 5%	1/10W
	-			R1702	1-249-413-11	CARBON 4	70 5%	1/4W
C1701			20% 16V	R1703	1-216-174-00		L00 5%	1/8W
C1702		CERAMIC CHIP 390PF	5% 50V	R1704	1-249-418-11		L.2K 5%	1/4W
C1704 C1706			500V 20% 160V	R1705	1-247-736-11	CARBON	56 5%	1/2W F
C1707			20% 50V	R1706	1-249-414-11	CARBON 5	560 5%	1/4W F
				R1707	1-249-411-11	CARBON 3	330 5%	1/4W
C1708		CERAMIC CHIP 0.047MF	50V	R1709	1-249-412-11		390 5%	1/4W
C1709 C1710			5% 200V 10% 250V	R1711 R1712	1-249-432-11 1-216-085-00		18K 5% 33K 5%	1/4W 1/10W
C1711			10% 250V 10% 500V	K1/12	1-210-003-00	MEIRU GURGE 3	סכ אכנ	1/10#
C1712			20% 160V	R1713	1-216-083-00		27K 5%	1/10W
44.54	1 100 010 11	anniura 0.001m	100	R1714	1-216-073-00		LOK 5%	1/10W
C1713 C1714		CERAMIC 0.001MF FILM 0.01MF	10% 500V 10% 250V	R1715 R1716	1-215-866-11 1-249-417-11		330 5% LK 5%	1W F 1/4W F
C1714		CERAMIC CHIP 220PF	10% 250V 10% 50V	R1717	1-249-432-11		L&K 5%	1/4W F
C1716	1-126-964-11	ELECT 10MF	20% 50V					
C1718	1-126-934-11	ELECT 220MF	20% 16V	R1718	1-249-412-11		390 5%	1/4W
C1719	1-126-964-11	ELECT 10MF	20% 50V	R1719 R1720	1-249-416-11 1-216-089-91		320 5% 17K 5%	1/4W 1/10W
C1722			5% 500V	R1721	1-249-414-11		60 5%	1/4W
C1723	1-126-791-11	ELECT 10MF	20% 16V	R1723	1-249-429-11		LOK 5%	1/4W
C1724	1-101-810-00	CERAMIC 100PF	5% 500V	p1704	1 916 600 11	WEMAT AT 1889 1) OF E0.	1 /1 0W
				R1724 R1725	1-216-689-11 1-249-413-11		39K 5% 170 5%	1/10W 1/4W
				R1726	1-216-035-00		270 5%	1/10W
				1			•	•

The components identified by shading and marked \triangle are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque $ilde{ }$ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



1-473-692-11 COMMANDER, STANDARD TYPE (RM-862)

REF.NO.	PART NO.	DESCRIPTIO	N		REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK		
R1727	1-249-402-11		56	5%	1/4W F			CELLANEOUS			
R1729	1-216-166-00	METAL GLAZE	47	5%	1/8W		****				
R1730 R1731	1-216-121-91 1-216-049-91		1M 1K	5% 5%	1/10W 1/10W			COIL, DEGAUSSING MAGNET, DISK; 10MM Ø			
R1735	1-216-049-91		1K	5%	1/10W			MAGNET, ROTATABLE DISK	• 15MM Ø		
R1736	1-247-807-31		100	5%	1/4W	,		TRANSFORMER ASSY, FLYB			
R1737	1-216-075-00		12K	5%	1/10W				(NX-4003/U2B4)		
R1738	1-216-174-00	METAL GLAZE	100	5%	1/8W		1-504-146-11	SPEAKER (5X11CM)			
R1739	1-216-222-00		10K	5%	1/8W			CAP ASSY, HIGH-VOLTAGE			
R1740	1-216-174-00	METAL GLAZE	100	5%	1/8W			SWITCH, PUSH (AC POWER			
R1741	1-216-166-00		47	5%	1/8W		1-693-338-11	TUNER (TUVIF) (AEP)			
R1743	1-216-021-00	METAL GLAZE	68	5%	1/10W				5C3A/25C3D/25C3E)		
R1744	1-216-150-91	W9731 (11379	10	5%	1/8W		1-693-340-11	TUNER (TUVIF) (FR) (KV	-25C3B)		
R1745	1-216-150-91		10	5%	1/8W		<u> 1-751-680-11</u>	CORD, POWER (WITH NOIS	E FILTER)		
******	*******	*********	*****	*****	**********		A 8-451-474-11	DEFLECTION YOKE (Y25GX	CB)		
								NECK ASSY, (NA297-M)			
								PICTURE TUBE (SD-257)	M60LCS60X)		
						*****	*********	******************	*******		
							ACCESSORIES AND PACKING MATERIALS				
							1-769-175-11	CABLE, ANTENNA (WITH F	TI.TED)		
								BAG, PROTECTION	-ulun,		
								CUSHION (UPPER) (ASSY)			
								CUSHION (LOWER) (ASSY)			
								INDIVIDUAL CARTON			
							4-203-639-41	MANUAL, INSTRUCTION (K	V-25C3A)		
							4-203-639-51	MANUAL, INSTRUCTION (K (FRENCE/GERM	V-25C3B) AN/ITALIAN/DUTCH)		
							4-203-639-11	MANUAL, INSTRUCTION (K (GERM	V-25C3D) AN/ENGLISE/DUTCE)		
								MANUAL, INSTRUCTION (K			
							4-203-639-81	MANUAL, INSTRUCTION (K (PORTUGUESE/DANISE/S FINNISE)			
								TE COMMANDER			
							****	*******			

Sony Corporation
Consumer A & V Products Company
TV & Display Products Div.

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